DUN'S REVIEW

Published by
DUN & BRADSTREET, INC.
ESTABLISHED 1841

Thirty five cents *February 1945*

XCII of a series of Century old cities - Newburgh, N.Y.

Contents

DUN'S REVIEW, February 1945. Published monthly by DUN & BRADSTREET, INC., 290 Broadway, New York 8, N. Y.... Copyright 1945 DUN & BRADSTREET, INC. . . . Subscription information on page 50.... Frontispiece from Galloway.

The Cover

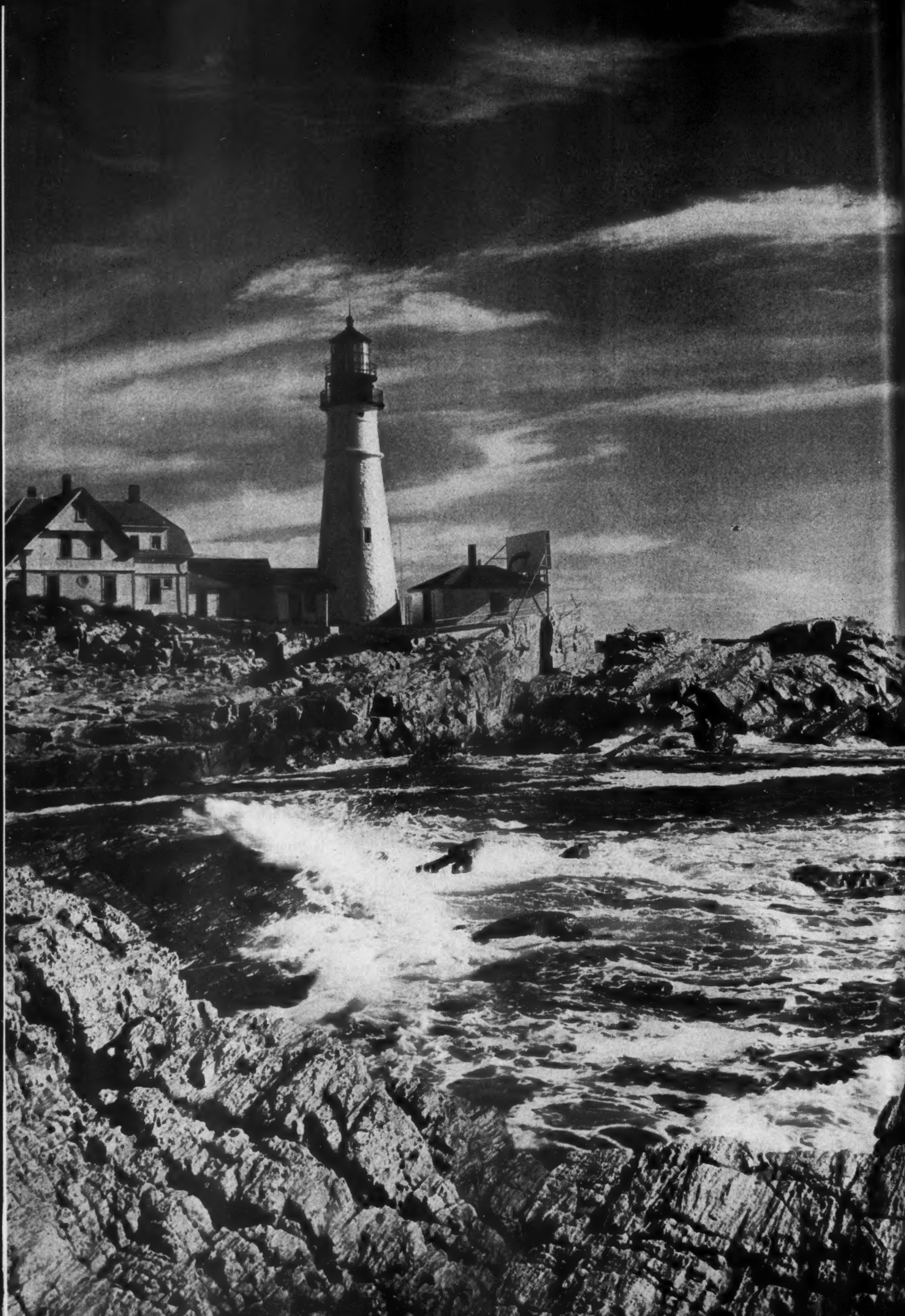
Newburgh, N. Y., trading and manufacturing center and inland port, is located on the west bank of the Hudson River 60 miles north of New York City.

Its settlement dates from 1709 when a band of Germans from the Rhenish Palatinate located there. Later many of these settlers moved to Pennsylvania and their lands were taken over by Scotch, Irish, and English settlers. The community in 1752 was named Newburgh after the Scottish town from whence some of the residents had come.

With a 1940 population of 31,883, the city in 1939 had 62 manufacturing establishments employing an average of 3,581 wage earners who produced products valued at $17,544,809. The 762 retail stores had sales of $20,331,000; the 256 service establishments, receipts of $1,056,000; and the 67 wholesalers, sales of $13,533,000.

The city's diversified industries include the manufacture of artificial leather, camels' hair and llama cloth fabrics, rugs, lawnmowers, work clothing, felt, blankets, sportswear, and condensers. It likewise has a shipyard and drydock. With a good harbor, Newburgh does a large shipping business, especially in orchard, farm, and dairy products.

The cover print, reproduced from a lithograph by E. Whitefield contained in the Phelps Stokes Collection, New York Public Library, depicts the city as it appeared from across the Hudson in 1845.



GENDREAU PHOTOGRAPH

BENCH MARKS *for* MARKETING RESEARCH

THEODORE H. BROWN

Harvard Graduate School of Business Administration

From wide experience and pioneering work in applying sampling technique to marketing problems, Dr. Brown discusses the basic questions that arise. He shows how modern fact-finding has grown to be a more scientific process and tool and why a survey must be designed from the beginning with consideration of its validity for the objectives sought. He answers three common questions: How big should the sample be? How many geographical or other breakdowns can be prepared from the data? Can additional helpful information be obtained by adding a few questions to the questionnaires?

TODAY, happily marketing research is viewed in a different light from that of a few years ago. Expanded interest on the part of executives is being accompanied by a growing understanding of how this tool can be used. There is appearing, thanks to the persistence of directors of research, an executive tendency to accept the fact that research is almost hopeless unless it is deliberately coordinated with the solution of certain specific problems. The exact formulation of these problems not infrequently is complex and takes substantial amounts of thought and time.

Maybe it is too much to expect that executives will take the time or have the patience in the rush of administrative work to participate in the basic research step of problem formulation. Unfortunately, unless this is done they may get little of value from their research staffs.

Executives ask, for example, "How big a sample do I need to appraise my markets?" and say nothing about what goods or what markets or for what phase of market appraisal they need what facts and why they ought to know them.

Marketing research basically is directed toward the gathering of essential information needed to solve a particular problem or series of problems or to set policies arising in the distribution of goods. These problems include the discovery of the types of goods which

consumers want; a determination of where they may be sold and in what volume; how they should be packaged, if at all; and a knowledge of the channels through which particular markets may be reached.

As one or another report is presented to the administrative executive, he has the responsibility of deciding whether a particular study presents figures which are valid. In many cases he feels he can make the decision since such reports contain facts which check with known experience. Those reports which make use of sampling techniques to secure data, however, introduce ideas and procedures which often are strange and are ones for which previous experience provides no standards or facts for guidance. The complete picture that is wanted for this purpose is not known as yet, but there are certain phases of the work about which questions are often raised. These are reviewed in the following notes.

Typical Questions

There are perhaps three questions which are commonly asked about sampling problems. These are: (1) How big should the sample be? (2) How many geographical and other tabular breakdowns can be made from the data? and (3) Can we have other problems solved in the course of the work by adding a few questions to the questionnaire?

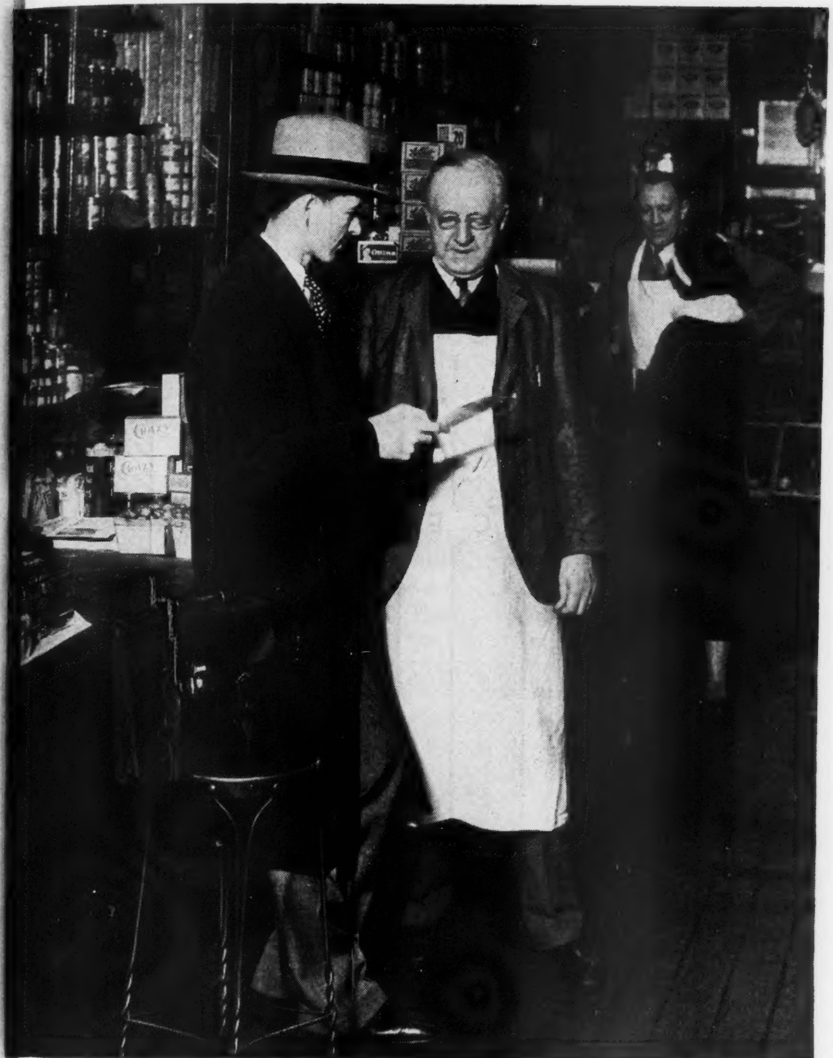
The question relating to the size of the sample is often expressed in another way: "What per cent of the population do we have to interview?" Taken alone, this form of the question is as unanswerable as the first. The size of the sample depends entirely upon the nature of the question to be asked and upon how accurate the answer has to be. Since the accuracy of a sample varies inversely as the square of the number of cases involved, small sampling errors are obtained at the price of disproportionately large samples. Thus, if an acceptable sampling error indicates a sample of 500 interviews, a sample with one-third the error would require three squared or nine times as many interviews, which is 4,500. When it is remembered that samples of 500 are likely to be in error by some 5 per cent or 6 per cent, the price of a high accuracy such as a fraction of 1 per cent error obviously may be prohibitive in cost.

This question of cost in relation to sampling errors is an important one which is very frequently overlooked. Consequently it is often desirable to review a research problem from the expense angle. For example, a high accuracy was decided to be necessary in determining one phase of consumer preference for a certain make of automobile. The cost of interviews to secure this accuracy was estimated to be in the neighborhood of $150,000, while the value of such a result probably was worth only about $5,000 to the company. It is obvious that the suggested research was not undertaken. Of course the converse more often is true. The prospective value of a given research is far in excess of the cost. Such researches are acceptable from an expense angle.

The question of sample size stated in the form of the percentage of the population leads to another problem. If the population is large in relation to the sample which is to be taken, the size of the sample is independent of the size of the population and may be determined solely with relation to the sampling accuracy which is desired. If, on the other hand, the sample for a given degree of accuracy involves 5 per cent or more of the population, then the sampling error tends to be diminished because the effect of a partial census begins to reduce the sampling error.

The second question is usually raised casually. The plan for the sample has been discussed and everyone is in agreement that the plan is excellent. At this point someone says, "Because we are asking this question of brand preference from people over and under twenty years of age, we will know answers by age groups, and because the questions are being asked in different parts of the country, we can also have the information classified geographically." If the consumer preferences are wanted for four different brands, the implication is that the results will be equally significant when the brand preferences are subclassified by sex, by ages, and by sections of the country. Thus, if there are two age groups of consumers for each sex and if there are nine geographic areas to be sampled in the United States, there are now in all 36 subclasses.

If the original plan was to interview 1,000 individuals to get a single table



GALLOWAY PHOTOGRAPH

of brand preferences for the United States as a whole, we now have the proposition that for an equal accuracy for each one of the 36 subclasses, 36,000 interviews will have to be made. The interviewing cost at $1 an interview has now jumped from $1,000 to $36,000. The cost of detailed information comes high. Again the expense question appears: "Is the detail worth the cost?"

The third problem commonly arises during preliminary discussions about the research. This takes the form of a suggestion to introduce additional questions which "can be easily covered in the course of the work." The idea is that when the work gets under way a little additional labor will increase substantially the amount of resulting information. This may be expressed in the everyday thought: "If you are going to town would you be willing to stop in on the way to leave this package?" Almost invariably such additions introduce questions irrelevant to the job which tend to dull materially the otherwise sharp quality of the interview. Not infrequently, also, the additional questions are part of a completely different type of study. The problem is no longer, "If you are going to town would you be willing . . . ?" but rather, "If you are going to town would you be willing to drop in at the bank and arrange for a new mortgage on the house?"

In marketing research questions belonging to different types of studies may call for entirely distinct plans. For example, if the objective of the research is to determine monthly the purchases and stocks on hand in grocery stores for certain lines of canned food, questions in the sample are directed toward obtaining certain numbers which can be summed for the sample. This may be quite different from the question, "What is the attitude of people in the various parts of our market toward our products and possibly toward our company?" The first question represents a measurement. And if that measurement is to possess a high sampling accuracy, then the sample should be large.

On the other hand, in a problem of appraising policies, if only a general pattern is wanted, a very few interviews may be sufficient to indicate these public attitudes and so to provide ideas which will be of value in setting company policies. It must be recognized, of course, that such patterns of attitudes when elaborated through larger samples become measurements or polls of public opinion. Even here they represent an entirely different problem from that of the flow of goods through the grocery stores: the two problems should be attacked separately and not merged.

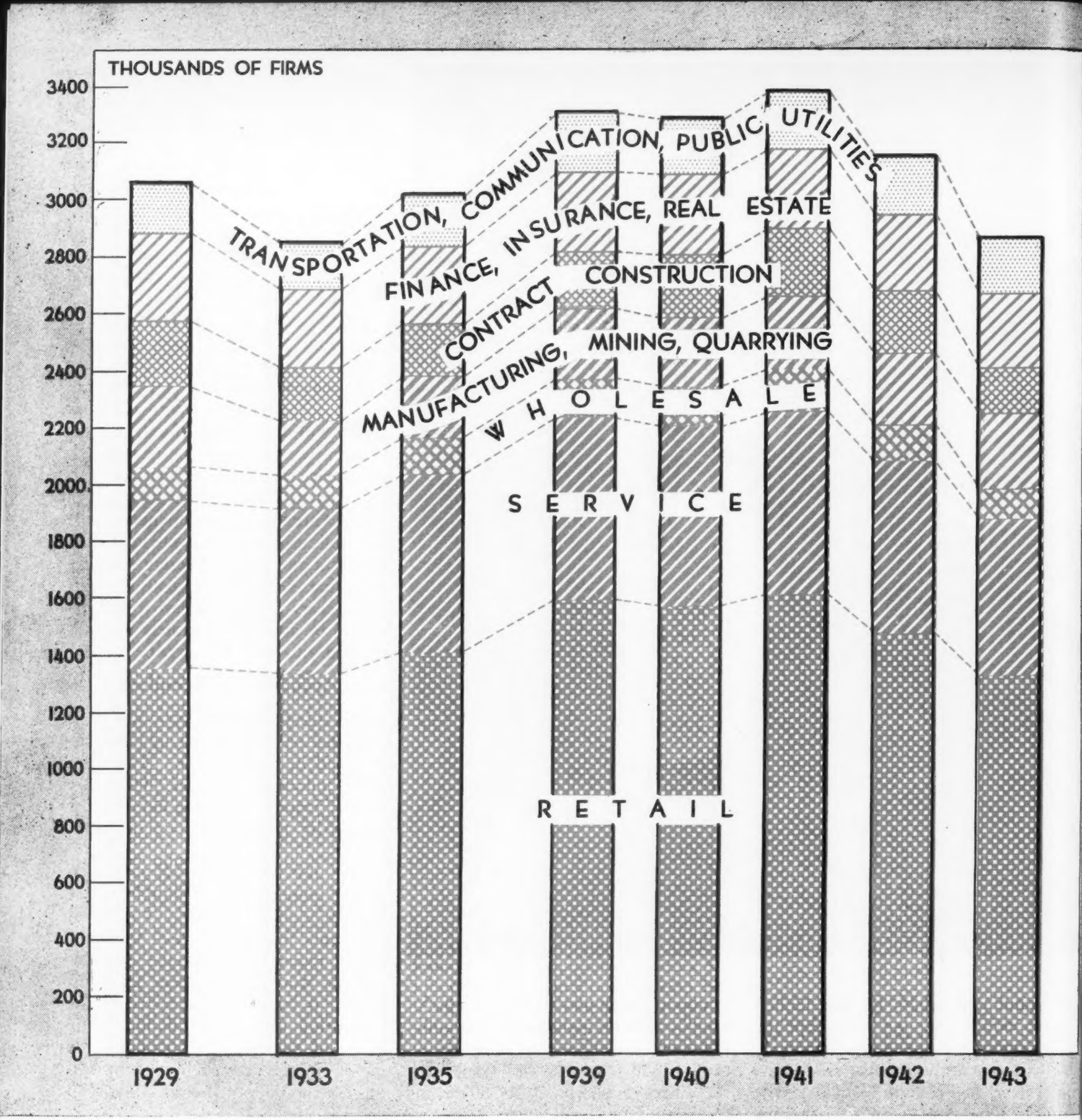
Appraisal of Sampling

The questions which have just been discussed are those which are frequently raised in conference. There are other questions, however, which are equally important in the appraisal of marketing researches involving sampling.

First and foremost is the validation of the sample. If the sample is not valid it is of little value. Validation represents the action which the marketing researcher must take in order that he may be confident that his sample is really representative of the population under examination. The buyer of facts obtained through the use of samples protects himself by asking for the date of the last validation and the methods used.

One of the simplest and most common types of validation is obtained through the use of so-called checked data. At the time when the unknown and desired facts are asked of the interviewee it is also determined whether he has a telephone, automobile, or radio, and whether he uses gas and electricity. When the sample has been completed the percentage for each of these check factors should correspond to known percentages for the same population as gathered by the Bureau of the Census. If these match, then it is presumed that the sample is in

(Continued on page 24)



How Business Is Divided Into Major Industrial and Trade Groups

This chart on the number of operating firms is based on the new comprehensive work of the United States Department of Commerce which is described in the article starting on the opposite page. These annual figures are for September 30 of each year.

Each of the major industrial and trade groups attained a peak in the third quarter of 1941, after a slight downward movement in 1940 and the first part of 1941. Following the outbreak of the war a sharp decline occurred in most industrial and trade classifications. While the number of construction firms in operation continued at a high level through the first quarter of 1942, the drop in that group was greater than for any other. The number of retail firms comprise almost half of the total number of firms in business.

In the table on page 14, those figures for September of each year are based upon more comprehensive data and are more reliable than the other quarterly figures. Within the service industries group, data for laundries and other business services are fragmentary.

The data used in these new compilations of the Department of Commerce were obtained chiefly from State tax commissions, State regulatory and inspection agencies, and State industrial commissions. The information was also supplemented by material obtained from various Federal agencies and trade associations. Special data furnished by many State agencies were especially helpful. The chief sources of information for the estimates of new, discontinued, and transferred businesses are the employer records of the Bureau of Old Age and Survivors Insurance and similar records from 40 State employment security agencies.

HOW MANY BUSINESSES ARE THERE?

A description of the business population data which has recently become available as a result of new work in the Business Structure Unit of the United States Department of Commerce.

Summarized by

LUCIENNE P. RICHON

Associate Editor, DUN'S REVIEW

SINCE the outbreak of the war in 1941 there has been a steady drop in the number of firms in business; the business population has declined by 434,000 firms or 13 per cent between 1941 and the end of the first quarter of 1944. This sharp movement downward, however, has slackened somewhat since the middle of 1943. From a record high level in September 1941 of 3,398,000, the number of firms declined to 2,870,000 in June 1943, or 15.5 per cent less since the start of the war. A degree of stability has been realized since 1943. The rate of decline has diminished, but the number of firms are at a low level when compared with the pre-war period.

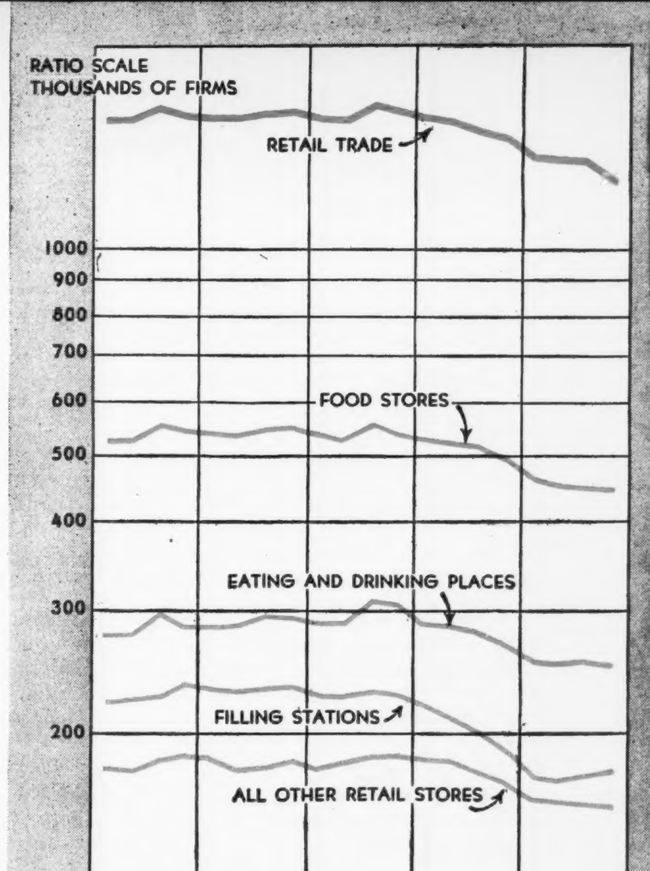
"The ratio between number of firms and total population was perhaps as great at the outbreak of World War II as at any other time since 1900. This suggests, at least in terms of number, that the opportunities for individual enterprise had not declined perceptibly during the 40 years preceding the war—except during the great depression—and that the entrepreneurial class was at least as numerous in 1941 relatively, as in 1900, 1920, or 1929."*

These conclusions are reached through recent work done by the Business Structure Unit of the United States Department of Commerce. Heretofore detailed data about the number of businesses in different industries and trades and analyses as to size have been available only in the years of a census of manufacturers or a census of business. The new data are to be published quarterly, the Department announces. This article summarizes some of the significant points of the findings; the comments on pages 12 and 15 tell further of the background of this information.

With the announcement of the new work there is included mention of the statistical series consisting of the count of firms listed in the DUN & BRADSTREET REFERENCE BOOKS as well as of other series. This DUN & BRADSTREET series is familiar to readers of DUN'S REVIEW from various articles reporting trends in the business population and in business births and deaths.

The new work includes quarterly data beginning with 1939 and also data for September 30, for the three years 1929, 1933, and 1935. The DUN & BRADSTREET series—in total only, without division by lines of business—is available for a longer period. It with other fragmentary data offers evidence upon which the Commerce research authorities base comments to fluctuations in the business population

* This quoted material and other material in the article quoted comes directly from the published reports of the work of the United States Department of Commerce in this field. These reports are referred to on page 15.



DECLINE IN RETAIL FIRMS SLACKENS

Almost all retail lines reached a peak in the third quarter of 1941. Following this period a decline in number was apparent in retail stores generally; at the end of 1943 there was an increase in some lines.

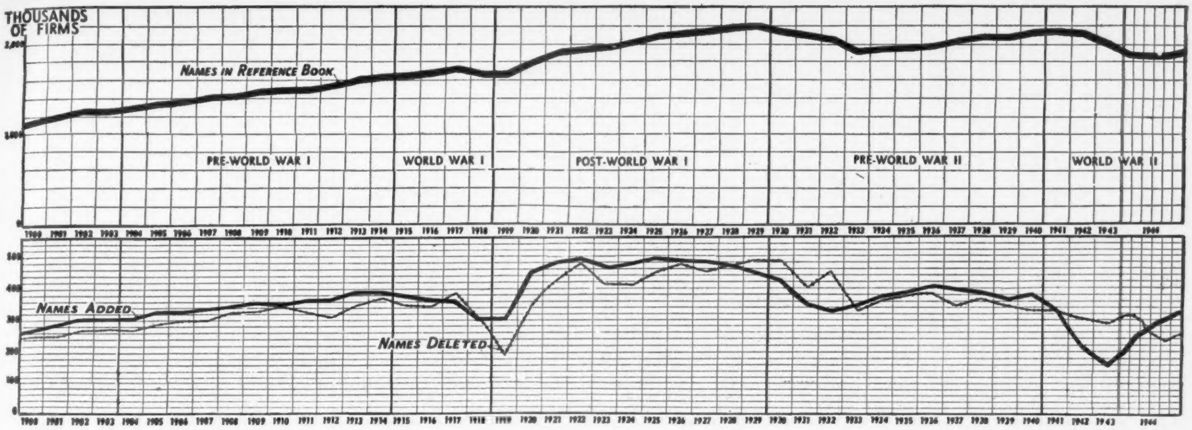
The number of firms in most industrial and trade groups increased in the first quarter of 1944. Total businesses operating rose to 2,480,000; wholesale trade increased to 115,000, retail trade to 1,330,500, and service industries to 554,500. In contrast, manufacturing firms declined to 227,000 and construction dropped to 137,400. Available data for the second quarter of 1944 indicate a further rise in retail trade to 1,351,800 and wholesale trade to 565,000.

Estimated Number of Operating Business Firms, 1939-1943, and Specified Earlier Dates

[In thousands]

Industry	1929 Sept. 30	1933 Sept. 30	1935 Sept. 30	1939 March 30	1939 June 30	1939 Sept. 30	1939 Dec. 31	1940 March 31	1940 June 30	1940 Sept. 30	1940 Dec. 31
Total, All Industries	3,060.0	2,850.4	3,025.4	3,171.9	3,189.6	3,316.7	3,307.4	3,293.5	3,271.2	3,298.2	3,304.2
Mining and Quarrying	22.8	21.4	22.3	21.1	21.3	21.4	21.5	21.7	21.8	22.0	22.3
Contract Construction	235.6	191.0	180.9	192.4	197.2	202.1	207.2	208.5	213.5	218.4	221.0
Manufacturing	251.3	169.0	199.3	213.6	213.9	214.2	214.5	214.9	215.2	215.5	218.0
Food and Kindred Products	.....	.....	.....	.....	.....	52.3	.....	.....	.....	54.0	.....
Leather, Apparel, Textile Products	.....	.....	.....	.....	.....	28.4	.....	.....	.....	26.8	.....
Lumber and Furniture	.....	.....	.....	.....	.....	33.0	.....	.....	.....	33.0	.....
Paper, Printing, and Publishing	.....	.....	.....	.....	.....	40.0	.....	.....	.....	40.2	.....
Chemicals and Allied Products	.....	.....	.....	.....	.....	6.5	.....	.....	.....	6.6	.....
Rubber Products	.....	.....	.....	.....	.....	1.6	.....	.....	.....	1.6	.....
Stone, Clay, and Glass Products	.....	.....	.....	.....	.....	5.5	.....	.....	.....	5.5	.....
Iron and Steel and Their Products	.....	.....	.....	.....	.....	8.1	.....	.....	.....	8.0	.....
Non-ferrous Metals	.....	.....	.....	.....	.....	5.6	.....	.....	.....	5.7	.....
Machinery Transportation Equipment	.....	.....	.....	.....	.....	12.3	.....	.....	.....	12.2	.....
Miscellaneous (including Petroleum, Tobacco)	.....	.....	.....	.....	.....	20.9	.....	.....	.....	21.9	.....
Transportation, Communication, Public Utilities	166.6	151.6	177.6	192.7	199.3	207.7	205.2	207.7	204.7	205.2	200.6
Wholesale Trade	120.4	116.5	127.8	138.8	139.8	144.8	143.8	142.7	142.0	143.3	143.8
Retail Trade	1,361.1	1,340.0	1,425.1	1,530.7	1,537.1	1,601.4	1,588.7	1,576.5	1,569.0	1,584.7	1,589.6
General Merchandise	.....	.....	.....	35.0	35.4	36.8	36.5	35.9	36.1	36.4	36.3
General Stores with Food	.....	.....	.....	37.1	36.7	37.7	36.9	36.2	35.4	36.0	35.6
Grocery, with and without Meats	.....	.....	.....	326.5	326.9	341.5	337.8	340.2	336.2	339.5	343.5
Meat and Seafood	.....	.....	.....	39.0	38.7	39.9	39.6	40.4	38.9	38.4	38.4
Other Food Stores	.....	.....	.....	110.3	112.6	120.0	116.1	109.4	110.2	112.3	109.6
Liquor	.....	.....	.....	14.4	15.0	15.3	15.2	14.7	15.0	15.2	15.4
Automobile Dealers (New and Used)	.....	.....	.....	36.3	35.2	38.4	38.3	36.9	38.1	39.0	39.4
Other Automotive	.....	.....	.....	13.9	14.1	15.1	15.3	15.5	15.7	15.8	15.9
Apparel and Accessories	.....	.....	.....	70.3	71.8	73.0	72.6	72.3	72.6	72.5	73.4
Shoes	.....	.....	.....	12.5	12.9	13.1	13.1	12.9	12.9	12.7	12.7
Home Furnishings and Equipment	.....	.....	.....	28.4	28.9	29.5	29.9	29.7	30.3	30.6	31.3
Appliances and Radio	.....	.....	.....	14.5	14.4	15.0	15.1	15.0	15.0	14.8	15.1
Drugs	.....	.....	.....	51.2	51.1	52.2	51.8	52.1	51.1	50.9	50.9
Hardware and Farm Implements	.....	.....	.....	36.3	37.6	37.9	37.8	38.8	38.0	37.6	38.2
Lumber and Building Material	.....	.....	.....	29.6	28.5	31.3	31.7	31.0	30.4	31.4	31.9
Eating and Drinking Places	.....	.....	.....	275.8	277.4	295.4	285.1	283.7	285.5	291.6	289.8
Filling Stations	.....	.....	.....	221.0	223.5	226.7	232.3	230.0	228.7	230.9	232.1
Other Retail	.....	.....	.....	178.6	176.4	182.7	183.6	181.8	178.9	179.1	180.1
Finance, Insurance, and Real Estate	306.2	276.2	273.5	281.0	281.0	286.4	290.2	286.3	282.2	283.0	284.0
Service Industries	596.0	584..	618.9	601.6	600.0	638.7	636.3	635.2	622.8	626.1	624.9
Hotels, etc.	.....	.....	.....	21.4	23.3	27.5	22.2	22.0	24.4	28.7	23.4
Laundries, etc.	.....	.....	.....	83.8	85.3	86.7	87.6	98.0	88.7	90.3	91.0
Barber and Beauty Shops	.....	.....	.....	194.2	188.2	203.4	212.1	207.0	204.8	201.0	203.2
Other Personal Services	.....	.....	.....	84.8	86.8	93.0	94.7	90.7	89.1	86.7	87.7
Automobile Repair	.....	.....	.....	77.2	76.4	77.5	79.0	77.7	76.8	75.8	77.7
Amusements	.....	.....	.....	38.5	37.9	44.2	41.2	41.4	41.4	44.8	43.0
Other Business Services	.....	.....	.....	101.7	102.1	106.4	99.5	98.4	97.6	98.8	98.9

Industry	1941 Mar. 31	1941 June 30	1941 Sept. 30	1941 Dec. 31	1942 Mar. 31	1942 June 30	1942 Sept. 30	1942 Dec. 31	1943 Mar. 31	1943 June 30	1943 Sept. 30	1943 Dec. 31
Total, All Industries	3,251.5	3,231.2	3,398.0	3,341.0	3,306.3	3,247.9	3,155.7	3,071.3	2,933.0	2,870.5	2,861.6	2,839.9
Mining and Quarrying	22.7	23.1	23.4	24.1	24.7	25.3	25.9	26.0	26.1	26.2	26.2	26.0
Contract Construction	213.9	225.4	243.8	241.2	248.6	230.5	220.2	203.0	187.3	168.5	158.1	147.1
Manufacturing	220.6	223.2	225.8	225.4	224.9	224.5	224.1	225.2	226.3	227.4	228.6	227.6
Food and Kindred Products	.....	.....	56.0	.....	.....	.....	54.6	.....	.....	.....	53.0	.....
Leather, Apparel, Textile Products	.....	.....	27.1	.....	.....	.....	27.0	.....	.....	.....	26.1	.....
Lumber and Furniture	.....	.....	36.0	.....	.....	.....	36.7	.....	.....	.....	40.6	.....
Paper, Printing, and Publishing	.....	.....	40.5	.....	.....	.....	38.6	.....	.....	.....	41.1	.....
Chemicals and Allied Products	.....	.....	7.7	.....	.....	.....	7.4	.....	.....	.....	7.1	.....
Rubber Products	.....	.....	1.4	.....	.....	.....	1.3	.....	.....	.....	1.2	.....
Stone, Clay, and Glass Products	.....	.....	6.0	.....	.....	.....	5.9	.....	.....	.....	7.3	.....
Iron and Steel and Their Products	.....	.....	8.8	.....	.....	.....	9.2	.....	.....	.....	9.0	.....
Non-ferrous Metals	.....	.....	6.2	.....	.....	.....	6.1	.....	.....	.....	5.9	.....
Machinery Transportation Equipment	.....	.....	13.3	.....	.....	.....	14.5	.....	.....	.....	15.3	.....
Miscellaneous (including Petroleum, Tobacco)	.....	.....	22.8	.....	.....	.....	22.8	.....	.....	.....	22.0	.....
Transportation, Communication, Public Utilities	199.4	197.8	209.2	204.7	207.6	203.9	197.2	194.5	188.3	185.5	188.0	187.9
Wholesale Trade	141.5	140.4	146.2	143.8	140.4	138.7	134.1	129.4	119.7	115.5	114.8	114.0
Retail Trade	1,562.3	1,550.8	1,620.8	1,590.8	1,551.3	1,529.8	1,480.7	1,433.7	1,359.1	1,333.8	1,330.4	1,324.7
General Merchandise	35.1	35.9	37.0	36.8	36.8	36.3	35.6	35.6	35.0	34.7	34.5	34.5
General Stores with Food	35.5	35.5	35.8	34.9	34.3	33.9	32.9	32.7	31.2	30.5	29.7	28.9
Grocery, with and without Meats	341.8	335.5	346.8	337.2	330.2	329.2	321.5	311.6	293.6	286.3	284.3	283.3
Meat and Seafood	37.8	35.2	38.7	37.2	39.9	35.9	34.3	33.3	31.6	26.6	28.5	28.3
Other Food Stores	107.1	104.6	113.6	108.5	106.8	107.4	103.8	101.2	93.7	92.8	93.5	90.8
Liquor	14.8	15.3	15.4	15.3	15.1	14.9	14.7	14.5	14.3	14.1	13.8	13.7
Automobile Dealers (New and Used)	38.4	38.8	41.0	39.8	38.3	36.1	34.3	33.2	31.4	31.1	30.9	31.3
Other Automotive	16.3	16.4	16.7	16.7	16.6	15.9	15.2	14.7	13.7	13.5	13.7	14.2
Apparel and Accessories	72.0	71.9	72.9	74.1	72.6	71.8	69.9	69.5	68.0	67.3	66.7	67.0
Shoes	12.8	12.9	13.2	13.0	12.9	12.7	12.1	11.9	11.3	10.7	10.4	9.8
Home Furnishings and Equipment	30.7	31.4	32.6	32.4	32.3	32.1	31.0	30.2	28.9	28.4	28.1	28.5
Appliances and Radio	14.8	14.5	14.8	14.5	14.1	13.3	12.7	11.6	10.8	10.6	10.3	10.1
Drugs	51.2	49.6	51.6	50.1	50.2	49.9	48.5	48.6	47.9	47.6	47.2	47.1
Hardware and Farm Implements	37.5	37.2	38.7	39.2	37.9	37.6	36.8	36.1	35.2	35.1	34.8	34.5
Lumber and Building Material	31.3	30.4	32.0	31.7	30.8	30.5	29.3	29.0	27.6	27.3	27.2	25.7
Eating and Drinking Places	283.7	284.0	307.8	301.5	281.9	281.0	277.5	265.9	253.3	250.2	250.8	250.5
Filling Stations	225.3	224.2	227.6	224.4	218.5	210.0	197.5	186.2	172.3	169.8	170.9	172.7
Other Retail	176.2	177.5	184.6	183.5	182.1	181.3	173.1	167.9	159.3	157.2	155.1	153.8
Finance, Insurance, and Real Estate	273.2	270.0	285.0	279.8	285.0	281.2	273.2	269.6	260.0	258.3	261.2	267.5
Service Industries	617.9	600.5	643.8	631.2	623.8	614.0	600.2	589.9	566.2	555.3	554.3	545.1
Hotels, etc.	22.4	24.9	29.1	23.2	22.0	24.9	26.6	22.8	21.1	22.5	24.4	21.4
Laundries, etc.	90.2	89.5	96.3	96.5	96.6	97.3	95.0	95.6	91.6	91.5	92.9	93.9
Barber and Beauty Shops	205.4	189.6	213.5	215.1	207.7	201.8	199.8	196.6	192.0	185.4	183.4	181.4
Other Personal Services	83.4	83.1	81.7	79.6	80.7	78.8	75.1	76.2	74.9	73.8	73.1	73.7
Automobile Repair	76.3	74.6	77.6	76.6	74.7	72.5	68.4	65.5	61.9	59.9	59.1	55.0
Amusements	42.9	42.8	44.6	41.2	45.3	43.4	42.8	42.5	39.3	38.5	38.0	37.0
Other Business Services	97.3	96.0	101.0	99.0	96.8	95.3	92.5	90.7	85.4	83.7	83.4	82.7



From 1900 business deaths numbered less than births with three exceptions; ins and outs turned upward in 1943 and after mid-1944 ins exceeded outs. This chart is based upon the count of firms listed in the DUN & BRADSTREET REFERENCE BOOK, which is published every two months. Data for 1944 is from the six bi-monthly issues.

in the years previous to those covered by this new comprehensive work.

From 1900 to 1929 the business population of these United States increased more than did the human population; the number of businesses increased 88 per cent while the number of people increased 62 per cent. In the recession period of 1929-1933 the number of businesses declined 7 per cent; during the recovery period, 1933 to 1941, there was a 20 per cent increase.

When available data such as the number of proprietors, managers, and officials; corporate and partnership income tax returns; and the estimated total number of firms is considered, it seems probable that the number of businesses in existence just before the war was as large as that prior to 1929 compared with human population.

Although the Department of Commerce work indicates that about 30 per cent of all firms have gone out of business since the start of the war, output, sales, and profits of most firms continued at an exceptionally high level. From 1941 to 1943 about 1,073,000 business firms discontinued; 572,000 new businesses were established, resulting in a decline of 501,000 firms in operation at the end of 1943. Most of the drop in business population took place during 1942 and early 1943 when war output was being expanded. "During this period of rapid conversion to a war economy, business discontinuances reached a peak of 177,000 per quarter, and the entry of new businesses declined precipitously to 32,000 per quarter."

(Continued on page 38)

INFORMATION ON BUSINESS POPULATION

The data on business population, which are compiled by the Business Structure Unit of the Bureau of Foreign and Domestic Commerce, United States Department of Commerce, are to be published quarterly in the *Survey of Current Business* and will consist of the number of operating firms, new and discontinued businesses, with detailed classifications by kind of business and size of firm. Some of these figures are appearing currently in the statistical section of the *Survey of Current Business.*

A series of three articles on business population was published by the United States Department of Commerce to serve as a background to the current quarterly data. The following articles were published in the March, May, and July 1944 issues of the *Survey of Current Business:*

TRENDS IN THE BUSINESS POPULATION,
by *Howard R. Bowen*

THE BUSINESS POPULATION IN WARTIME,
by *Howard R. Bowen, Donald W. Paden, and Genevieve B. Wimsatt*

NEW AND DISCONTINUED BUSINESS, 1940-1943,
by *Howard R. Bowen, Donald W. Paden, and Genevieve B. Wimsatt*

Some especially valuable tables are available in these three articles. Of significance are the tables which present the number of new businesses by industries for 1940-1943; the number of discontinued businesses by industries for 1940-1943; and the number of transfers by industries for 1940-1943. These three tables give detailed information for each quarter of 1943, for each major industry and trade group, and for individual lines; complete yearly data for 1940-1942 are given for all lines within the major groups except for those lines in the manufacturing group. Additional tables present the number of new and discontinued businesses and business transfers by size of firms within each industrial group for 1940 to 1943 and corresponding data as percentages of number of firms operating at the beginning of each year by industry for 1940 to 1943.

The comparative number of businesses in different industries, the importance of large and small firms, the relative degree of concentration in business firms, and the character of the size distribution of business in operation are well depicted in three tables; one gives the number of operating business firms by industry and size in 1939, another gives corresponding data on employment by industry and size of firms for 1939, and the third table indicates the percentage distribution of firms and employment by industry groups.

Copies of the *Survey of Current Business*, published by the Bureau of Foreign and Domestic Commerce, United States Department of Commerce, are available in most business or public libraries. If it is impossible to locate a copy of the *Survey of Current Business*, the editors of DUN'S REVIEW will try to furnish copies of any of the tables that may be needed by those using these figures.

Industrial Production

Seasonally Adjusted Index: 1935-1939 = 100; Federal Reserve Board

	1941	1942	[illegible]	1944
January	143	181	227	[illegible]
February	147	183	232	244
March	152	186	235	241
April	149	[illegible]	237	239
May	160	191	238	236
June	164	193	236	235
July	[illegible]	197	240	230
August	167	204	242	232
September	169	208	245	230
October	172	215	247	232
November	174	220	247	232
December	176	223	241	232

Cost of Living

Index: 1935-1939 = 100; U. S. Bureau of Labor Statistics

	1941	1942	1943	1944
January	100.8	112.0	120.7	124.2
February	100.8	112.9	121.0	123.8
March	101.2	114.3	122.8	123.8
April	102.2	115.1	124.1	124.6
May	102.9	116.0	[illegible]	125.1
June	104.6	[illegible]	124.8	125.4
July	[illegible]	117.0	123.9	126.1
August	[illegible]	117.5	123.4	126.4
September	108.1	117.8	123.9	126.5
October	109.3	119.0	124.4	126.4
November	110.2	119.8	124.2	126.5
December	110.5	120.4	124.4	126.8*

Wholesale Commodity Prices

Index; 1926 = 100; U. S. Bureau of Labor Statistics

	1941	1942	1943	1944
January	80.8	96.0	101.9	103.3
February	80.6	96.7	102.5	103.6
March	81.5	97.6	103.4	103.8
April	83.2	98.7	[illegible]	[illegible]
May	84.9	[illegible]	104.1	104.0
June	87.1	98.6	103.8	104.3
July	[illegible]	98.7	103.2	104.1
August	90.3	99.2	103.1	103.9
September	91.8	99.6	103.1	104.0
October	92.4	100.0	103.0	104.1
November	92.5	100.3	102.9	104.4
December	93.6	101.0	103.2	104.7*

Employment

Millions of Persons; U. S. Bureau of Census

	1941	1942	1943	1944
January	45.6	49.1	51.4	50.4
February	45.8	49.6	51.2	50.3
March	46.0	50.2	51.2	50.5
April	47.3	51.1	51.6	51.3
May	48.8	[illegible]	[illegible]	[illegible]
June	[illegible]	53.7	54.0	53.2
July	51.3	54.3	54.8	54.0
August	51.6	54.4	54.4	53.2
September	50.8	52.9	53.0	52.2
October	50.6	53.2	52.2	52.2
November	50.4	52.6	51.7	51.5
December	50.4	52.2	51.0	50.6

Retail Sales

Seasonally Adjusted Index: 1935-1939 = 100; U. S. Dept. of Com.

	1941	1942	1943	1944
January	133.1	153.2	159.5	[illegible]
February	137.1	148.3	[illegible]	176.4
March	133.9	147.6	[illegible]	179.5
April	[illegible]	[illegible]	160.1	168.4
May	[illegible]	[illegible]	156.5	171.7
June	144.4	141.8	164.5	171.2
July	149.1	147.6	165.1	177.0
August	155.0	150.3	167.7	178.0
September	147.4	150.9	165.5	174.5
October	141.6	154.3	168.3	180.1
November	149.0	158.2	172.5	187.2
December	152.1	153.9	171.8	181 *

Industrial Stock Prices

Monthly Average of Daily Index; Dow-Jones

	1941	1942	1943	1944
January	130.17	111.11	121.52	137.74
February	121.68	107.28	127.40	135.97
March	122.52	101.62	131.15	[illegible]
April	119.10	97.79	[illegible]	[illegible]
May	[illegible]	98.42	138.60	139.22
June	[illegible]	103.75	141.25	145.46
July	127.57	[illegible]	142.90	148.37
August	126.67	[illegible]	136.34	146.72
September	127.35	107.41	138.90	145.20
October	121.18	113.51	138.25	147.68
November	116.91	115.31	132.66	146.88
December	110.67	117.16	134.57	150.35

* Approximation: figure from quoted source not available.

THE TREND OF BUSINESS

SUMMARY: Current heavy war needs give added impetus to industrial output. Factory employment moves downward while payrolls remain high. Trade volume continues at a high level and above a year ago; inventories are generally depleted. Commodity prices are at a wartime peak.

IN manufacturing there was maintained during January a high level of activity, but it was slightly under a year ago. This high rate of productive capacity is reflected in the gross national product, an indicator of the value of total goods and services produced, which was about $197 billion in 1944.

Current heavy demands for war goods have accelerated the tempo of industrial activity. The trend of munitions production continues upward in those programs where increased output is essential, although it is still below schedule. While the tendency of many parts of munitions production is downward, some segments are expanding, holding the over-all total at a high level. Aircraft output is reported passed its peak and is moving downward, but recently production schedules have been increased slightly. Production of ammunition and combat and motor vehicles, on the other hand, is rising after having dropped off irregularly during 1944.

Basic indicators of industrial activity, such as manufacturers' shipments, electric power output, and steel operations, either point upward or remain at a steady high level. Those shifts downward in some lines of manufacturing production are counterbalanced generally by increased operations in essential or already scheduled programs. In major industries steel output continues high as wartime demands expand; over 89,000,000 tons were produced in 1944 and over 5,000,000 tons in the first half of January. Although steel production is at record levels since the start of the war, the rate of increase over the past four years has consistently diminished. New orders continue to increase with emphasis on bars for ammunition and plates for ships. Refined copper output in the beginning of 1945 was about 6 per cent below a year earlier. Zinc shipments have increased to about 23 per cent over a year ago; unfilled orders are about half those of last year but have increased in recent months. Zinc output in January declined to about 13 per cent below last year.

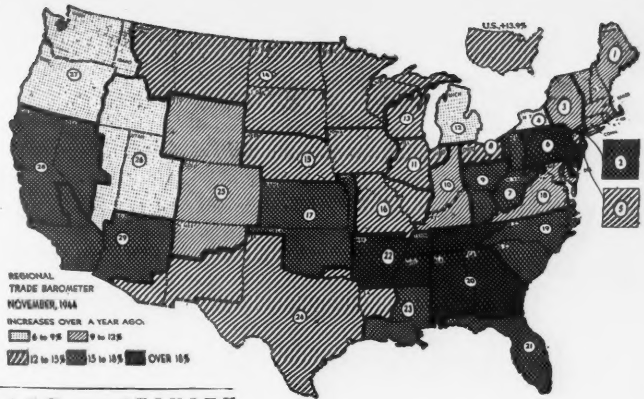
With a good proportion, about 25 per cent, of production in electrical manufacturing plants centered on non-electrical products such as ammunition, tanks, aircraft, hardware, etc., output in 1944 was reported 5 per cent above 1943. Although production of lumber, paper, paperboard, and furniture is lower than a year ago, it is maintained at a very high point. Increased military requirements are cutting more deeply into available textile and leather stocks. Less rayon, cotton, and woolen piece goods have slowed production and deliveries of Spring merchandise.

New orders in most lines in January remained high, about 16 per cent over 1943, spurred by the continued flow of Government bookings. The most appreciable gain has been in the durable goods group. Manufacturers' shipments continue slightly—about 3 per cent—over a year ago.

Employment—The expansion in production schedules in some industrial fields has not been met with a corresponding increase in employment. The labor shortage problem continues extremely pressing in many vital industries and in some industrial areas; the production of many critical metals is reported hampered by labor deficien-

REGIONAL TRADE REPORTS

The DUN'S REVIEW Trade Barometers (1935-1939 = 100) are compiled under the supervision of Dr. L. D. H. Weld. In this summary seasonally adjusted figures are used. Regional information is gathered through local DUN & BRADSTREET offices. Payroll and employment figures are from Government sources. More detailed data are avail able in DUN'S STATISTICAL REVIEW. Barometer figures may be obtained in advance of publication.



Region	Nov. 1944	% Change from Oct. '44	% Change from Nov. '43	HIGHLIGHTS OF TRADE ACTIVITY
UNITED STATES	206.8	+ 8.4	+13.9	Seasonally adjusted index attained another new high; now at 206.8 which is 8% above previous peak reached last month.
1. NEW ENGLAND	170.3	+ 5.4	+10.1	Lowest barometer here. Massachusetts employment in wholesale and retail trade above 1943; Lowell, Holyoke off; New Bedford up.
2. NEW YORK CITY	185.0	+12.5	+19.1	Greatest yearly gain; monthly rise large but index 10% under U. S. Retailing at highest December level; wholesaling seasonally dull.
3. ALBANY, UTICA, SYRACUSE	191.4	+ 8.4	+11.9	Average monthly gain but small yearly rise holds index moderately below national. Employment and payrolls well below 1943 in Utica, Albany–Schenectady–Troy area, Syracuse, and Binghamton.
4. BUFFALO, ROCHESTER	212.9	+11.5	+ 8.5	Small yearly gain but above average monthly rise holds index slightly above national. Employment and payrolls fairly steady in recent months but Buffalo off more than 10% from 1943, Rochester even.
5. NORTHERN NEW JERSEY	173.0	+10.8	+12.0	Barometer continues low compared with national, but has improved in past four months. Factory employment moderately below 1943 in Elizabeth and Newark; payrolls off in Elizabeth, up in Newark.
6. PHILADELPHIA	193.5	+11.9	+18.7	Altoona and Scranton employment above 1943; drops in Chambersburg, Philadelphia, Williamsport, and Wilmington. Payroll declines in Chambersburg, Lancaster, Philadelphia, Williamsport, Wilmington.
7. PITTSBURGH	188.4	+ 7.5	+17.4	Comparison with U. S. improved in recent months. Erie industrial employment and payrolls moderately below 1943; smaller decreases in Pittsburgh, Kane–Oil City, and Sharon–New Castle.
8. CLEVELAND	217.1	+ 6.1	+12.0	Index moderately above U. S. Dayton employment about 9% below 1943; payrolls up 5%. Yearly farm income moderately over 1943.
9. CINCINNATI, COLUMBUS	208.4	+ 7.1	+15.5	Index stays under national. Industrial employment in Columbus and Cincinnati running moderately but consistently under 1943 since last February. Columbus business activity slightly over 1943.
10. INDIANAPOLIS, LOUISVILLE	220.5	+ 6.3	+10.6	Below average monthly and yearly gains reduced barometer to about 7% above national. Indiana factory job rosters and payrolls down slightly during month.
11. CHICAGO	195.4	+ 6.1	+14.7	Index remains moderately below U. S. level. Factory employment moderately under 1943; payrolls even.
12. DETROIT	215.5	+ 0.2	+ 8.7	Detroit employment down about 8% from 1943; Grand Rapids off 5%. Monthly and yearly gains small; barometer only 4% above national.
13. MILWAUKEE	216.4	+12.2	+14.4	Index continues moderately above country's level. Wisconsin employment in 1944 about 3% below 1943; payrolls up 4%.
14. MINNEAPOLIS, ST. PAUL	195.3	+12.5	+12.0	Despite better than average monthly gain and fair yearly rise, index remained moderately below U. S. Minnesota employment has run below previous year for past eight months.
15. IOWA, NEBRASKA	197.7	+ 5.7	+12.3	Monthly and yearly gain below average Iowa crop output largest on record. Livestock shipments 21% above 1943. Iowa employment now off about 12% from 1943; payrolls down 9%.
16. ST. LOUIS	202.3	+13.8	+13.6	Index now only 2% below national. Estimated Missouri corn output almost double 1943; sorghums more than twice; oats off sharply.
17. KANSAS CITY	219.9	+10.1	+16.5	Increase over national index rising. Kansas City, Wichita, and Oklahoma City employment gains over 1943 better than national average.
18. MARYLAND, VIRGINIA	234.9	+14.2	+10.7	Monthly increase exceeds national; yearly rise less than average but gain over U. S. rising. Richmond cigarette output 15% below 1943. Baltimore and Maryland industrial employment slightly below 1943.
19. NORTH, SOUTH CAROLINA	236.8	+10.1	+17.4	Monthly and yearly index gains better than average. North Carolina and South Carolina manufacturing employment and payrolls continue slight monthly downward trend.
20. ATLANTA, BIRMINGHAM	256.1	+ 5.7	+18.3	Despite smaller than average monthly rise, high yearly gain raised index to second highest level in country. Cotton ginnings in Georgia off 13% from 1943, up 2% in Tennessee, even in Alabama.
21. FLORIDA	250.0	+ 0.8	+15.7	Index lost first place, first time since March 1944. Early orange crop 21% below 1943 due to hurricane; tangerine output up 22%.
22. MEMPHIS	217.2	+ 2.2	+18.6	Large yearly rise helps maintain index 5% above U. S. Arkansas employment about 3% above year ago; payrolls maintain slight gain.
23. NEW ORLEANS	230.0	+ 0.3	+16.0	Index 11% over U. S., smallest gain over national since August 1944. New Orleans industrial employment continues gradually downward.
24. TEXAS	240.7	+ 4.7	+12.6	Index at lowest gain over U. S. since last January. Largest employment and payroll gains over 1943 in Sherman, Port Arthur, El Paso; declines: Fort Worth, Galveston, Wichita Falls.
25. DENVER	189.8	+ 4.8	+ 9.6	Index 8% under national. Colorado broom corn 27% above 1943, barley off 15%. New Mexico sorghums triple, barley double, cotton up 6%.
26. SALT LAKE CITY	221.1	+15.0	+ 7.8	Large monthly rise pulls index moderately above national. Salt Lake City factory employment continues well below 1943.
27. PORTLAND, SEATTLE	257.9	+13.3	+ 8.5	Region maintained highest index. Lumber production about 5% below 1943. Seattle and Spokane industrial employment off about 5% from 1943; Tacoma down 13%.
28. SAN FRANCISCO	232.0	+ 9.5	+15.3	Index maintained at 12% above U. S. with better than average gains. Manufacturing employment 16% below 1943; payrolls off 6%.
29. LOS ANGELES	233.1	+10.8	+15.1	Monthly and yearly gains exceed national; index 13% above U. S. Los Angeles factory employment 17% below 1943; payrolls off 10%.

cies. The principal increases in employment are in the trade and in the finance and service groups.

The trend of manufacturing employment varies in certain industries. While the total number of workers in industrial plants by January had dropped off some 8 per cent during the past fourteen months, the decline has been more pronounced in certain vital segments of industry, chiefly metal, transportation equipment, lumber, and textiles. Factory employment has decreased below a year ago in each of the durable goods groups and in almost all of the non-durable goods groups.

Income—As production continues at a very high level, factory payrolls are maintained close to record levels in most industries; hourly and weekly earnings of workers continue to average moderately above previous years' high figures in some vital industries. Farm wage payments in the beginning of January were reported well above a year earlier—about 18 per cent; this increase was prevalent in all sections of the country.

While income payments to individuals in November declined about 3 per cent below the previous month, they were 8 per cent above the corresponding month of 1943. The monthly decline reflects the usual October-November drop in dividend and interest disbursements. Running parallel with the expansion of consumer expenditures, income payments to individuals in 1944 were estimated close to $155,000,000,000, 9 per cent above the record 1943 total. The major part of the increase in income payments was in salaries and wages. Dividend payments in 1944, amounting to $3,685,500,000, remained about even with 1943—a gain of 3 per cent (U. S. Department of Commerce).

Prices—Stimulated by advances in all commodity groups except industrials, the USBLS wholesale commodity index in December, estimated at 104.7 per cent of the 1926 average, attained a new wartime peak. The index of commodity prices, in the week ended January 20, 1945, was at 104.8 per cent. In the present war period wholesale prices were reported to have risen 39 per cent from August 1939 through December 1944.

Living costs increased fractionally to 126.9 in December as compared with the 1935-1939 base of 100 of the USBLS index. The further rise in food, clothing, and house furnishings accounted for the gain.

Wholesale Food Price Index

The index is the sum of the wholesale price per pound of 31 commodities in general use:

1945		1944		1945		
Jan. 23..	**$4.10**	Jan. 25..	**$4.02**	High	$4.10	Jan. 16
Jan. 16..	4.10	Jan. 18..	4.02	Low	4.09	Jan. 2
Jan. 9..	4.09	Jan. 11..	4.00	1944		
Jan. 2..	4.09	Jan. 4..	3.99	High	$4.09	Dec. 12
				Low	3.98	May 23

Daily Wholesale Price Index

The index is prepared from spot closing prices of 30 basic commodities. (1930-1932 = 100).

Week Ending:	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Jan. 27..	175.43	175.39	175.08	175.23	175.18	175.06
Jan. 20..	175.47	175.57	174.88	175.50	175.49	175.37
Jan. 13..	175.66	175.44	175.64	175.63	175.56	175.60
Jan. 6..	Holid'y	175.16	175.35	175.33	175.38	175.42
Dec. 30..	Holid'y	174.92	174.82	174.93	175.02	175.10

Building Permit Values—215 Cities

Geographical Divisions:	December 1944	December 1943	% Change
New England.......	$2,176,613	$1,532,247	+ 42.1
Middle Atlantic.....	8,948,691	5,359,929	+ 66.7
South Atlantic......	3,374,598	3,258,152	+ 3.6
East Central........	9,561,770	9,567,750	— 0.1
South Central......	4,800,703	5,033,514	— 4.6
West Central.......	3,371,011	1,508,764	+123.4
Mountain	1,060,637	1,105,823	— 4.1
Pacific	5,985,432	15,027,304	— 60.2
Total U. S..........	$39,279,455	$42,393,483	— 7.3
New York City.....	$7,171,255	$1,887,985	+279.8
Outside N. Y. C....	$32,108,200	$40,505,498	— 20.7

Retail—With purchasing power at a high level retail volume continues to rise; January sales are estimated about 5 per cent above the corresponding 1944 month. Few of the usual first-of-the-year sales promotions were evident but shoppers were buying sufficient quantities of food, apparel, cosmetics, jewelry, and accessories, and to a lesser degree house furnishings. Many stores reported depleted inventories after the heavy holiday volume of trade. The Dun's Review United States Barometer of consumer purchasing power for December was estimated about 15 to 20 per cent above the same 1943 month.

Wholesale volume in January was estimated moderately over the similar 1944 month, due to low retail stocks and to the previous slow delivery situa-

PLASMA TO THE RESCUE...
Mr. Cellophane protecting the needle!

THE NEEDLES which transmit blood plasma to our Armed Forces *must be kept sterile.* And that's Sylvania cellophane's job! The needles are first sealed in cellophane then sterilized at terrific heat. The cellophane stays air-tight and bacteria resistant. The needles stay sterile!

One more essential war job for Sylvania! One more "command performance" for cellophane. But bear in mind that the developments Sylvania is making today will mean more uses for cellophane . . . and better cellophane . . . in the postwar tomorrow.

SYLVANIA CELLOPHANE

Made only by SYLVANIA INDUSTRIAL Corporation

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 122 E. 42nd St., New York 17, N. Y. ★ *Plant and Principal Office:* Fredericksburg, Va.

●Reg. Trade Mark

Bank Clearings—Individual Cities

(Thousands of dollars)

	December 1944	December 1943	% Change
Boston	1,783,334	1,533,357	+16.3
Philadelphia	3,038,000	3,043,000	— 0.2
Buffalo	282,050	289,819	— 2.7
Pittsburgh	1,224,264	1,234,937	— 0.9
Cleveland	1,013,848	1,024,126	— 1.0
Cincinnati	567,512	497,795	+14.0
Baltimore	741,703	690,440	+ 7.4
Richmond	441,598	361,830	+22.0
Atlanta	742,300	664,600	+11.7
New Orleans.......	397,537	413,094	— 3.8
Chicago	2,406,167	2,217,581	+ 8.5
Detroit	1,579,329	1,607,646	— 1.8
St. Louis..........	823,209	819,957	+ 0.4
Louisville	353,960	345,485	+ 2.5
Minneapolis	648,422	689,919	— 6.0
Kansas City........	866,301	895,290	— 3.2
Omaha	319,370	348,295	— 8.3
Denver	267,623	290,213	— 7.8
Dallas	575,260	494,957	+16.2
Houston	512,575	466,770	+ 9.8
San Francisco......	1,416,494	1,268,115	+11.7
Portland, Ore.......	346,977	352,142	— 1.5
Seattle	430,860	389,195	+10.7
Total 23 Cities.....	20,778,693	19,938,563	+ 4.2
New York.........	29,724,214	24,105,598	+23.3
Total 24 Cities.....	50,502,907	44,044,161	+14.7
Daily Average......	2,020,116	1,694,006	+19.3

tion. Buying activity covered a wide range of goods, largely for Spring and Summer selling and also for immediate delivery.

Finance—Bank debits, aggregating $91,271,000,000, were the largest for the year 1944 in December and were 19 per cent above December 1943, while total deposits in Federal Reserve banks were at the extremely high level of $16,411,000,000, and the amount of money in circulation in December was at the highest level on record.

Volume of shares traded on the stock market during December expanded to the largest total of any month since June. In January turnover continued to run high as prices edged upward. Volume was heavy with highs reached in the industrial and railroad averages.

Failures—Business failures took an upturn in December and reached the highest number of any month in the latter half of 1944. Despite the increase, however, it brought to a close the lowest failure year on record. The number of failures was less than one-eighth and the liabilities less than one-fifth those of 1918, the low year of World War I.

Only one failure occurred in 1944 for every three in 1943. Dun's Insolvency Index showed an average of six concerns failing in 1944 per 10,000 business enterprises, as compared with sixteen in 1943 and forty-four in 1942.

Apparently failures are levelling off—the decline from 1943 to 1944 was less sharp than from 1942 to 1943. The downtrend continued in all industry, trade, and size groups, but it slackened considerably in manufacturing failures and in failures involving liabilities of $25,000 or more.

Prepare Now For CONTRACT TERMINATION *and* RECONVERSION

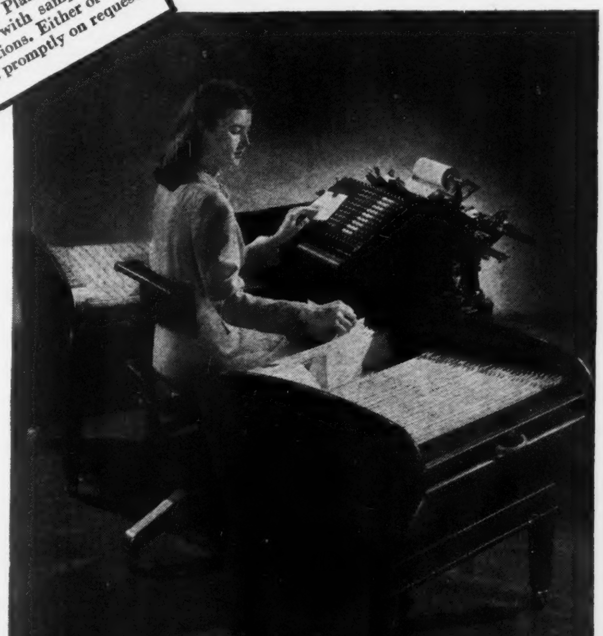
Contract Termination. The procedure established by the government for termination of contracts points to but one thing—*prompt settlement of claims.* There are 14 steps for Prime Contractors to follow—and 10 steps for Sub-Contractors.

The Acme Visible "Contract Termination" system shows *at a glance* just where the lags are—which subcontractors and vendors are behind the parade. It *signals* where action needs to be taken.

Reconversion. There is no better time than now, when you are making plans for post-war business, to establish a modern, up-to-date sales control system. Facts regarding customers, products and territories will become progressively more important as the reconversion program expands.

Acme Visible Record Equipment places these important sales facts before you where you can *See, Analyze* and—*Act.* It will soon be necessary to base decisions on such sales facts. Prepare *Now!*

We have prepared two new, timely, informative portfolios covering "Contract Termination" and "Reconversion Planning." They are complete with sample cards and explanations. Either or both will be sent promptly on request.



Acme's technical experience of over 25 years, specializing in record systems, is available to War Contractors and Manufacturers—to aid them in effecting economies and short cuts—to speed and coordinate the many elements involved in the control of:

MEN...MATERIALS...MACHINES...MONEY

Acme Visible Equipment is applicable to every kind of record and, when applied, *multiplies the value of the record* and, in addition, *effects a substantial saving in clerical time.*

Installation Service

Acme has available a staff of experts ready to index and install records and train personnel in their use. Acme takes entire responsibility, or Acme furnishes installation operators, in charge of a competent supervisor, on a per diem basis. Estimates furnished on either plan.

Following completion of installation, procedure instructions are prepared to insure the continuous, uniform operation of the record regardless of changes in personnel.

ACME VISIBLE RECORDS, INC.

122 SOUTH MICHIGAN AVENUE • CHICAGO 3, ILLINOIS

The tendency manifested in 1943 for small failures to drop off more rapidly than large failures became more pronounced in 1944. Due to this, the aggregate current liabilities in 1944 amounted to almost seven-tenths last year's total, although there were only three-eighths as many failures.

Compared with the twenty-five largest cities, the balance of the country came closer to its failure record of the previous year. Of the big cities, two (Washington and Indianapolis) showed an increase in failing concerns, in two (Los Angeles and St. Louis) failures almost equalled those of last year, two (Houston and New Orleans) did not report any failures, while the rest of the cities reported approximately one failure for every three in 1943.

THE FAILURE RECORD

	Dec. 1944	Year 1944	Year 1943	Per Cent Change†
DUN'S INSOLVENCY INDEX*				
Unadjusted	6.0	6.5	16.4	—60
Adjusted, seasonally...	6.1	..	..	..
NUMBER OF FAILURES	93	1,222	3,221	—62
NUMBER BY SIZE OF DEBT				
Under $5,000.........	29	452	1,614	—72
$5,000–$25,000	44	549	1,272	—57
$25,000–$100,000	19	175	269	—35
$100,000 and over.....	1	46	66	—30
NUMBER BY INDUSTRY GROUPS				
Manufacturing	36	352	567	—38
Wholesale Trade......	11	94	257	—63
Retail Trade.........	36	493	1,761	—72
Construction	4	164	399	—59
Commercial Service ...	6	119	237	—50
	(Liabilities in thousands)			
CURRENT LIABILITIES.....	$1,804	$31,660	$45,339	—30
TOTAL LIABILITIES	$1,804	$35,607	$59,213	—40

*Apparent annual failures per 10,000 enterprises.
†Per cent change of 1944 over 1943.

FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in thousands of dollars)	Number Jan.-Dec. 1944	Number Jan.-Dec. 1943	Liabilities Jan.-Dec. 1944	Liabilities Jan.-Dec. 1943
MINING, MANUFACTURING ...	352	567	20,172	19,059
Mining—Coal, Oil, Misc....	13	27	1,828	1,012
Food and Kindred Products	30	79	1,498	2,524
Textile Products, Apparel..	30	85	610	2,303
Lumber, Lumber Products..	57	70	3,376	1,696
Paper, Printing, Publishing.	25	84	351	2,268
Chemicals, Allied Products.	15	29	483	503
Leather, Leather Products..	4	8	29	242
Stone, Clay, Glass Products.	12	21	599	607
Iron, Steel, and Products...	18	28	575	1,135
Machinery	84	58	5,242	4,965
Transportation Equipment..	21	10	4,004	705
Miscellaneous	43	68	1,477	1,099
WHOLESALE TRADE	94	257	1,700	3,108
Food and Farm Products...	36	94	545	1,173
Apparel	3	21	30	133
Lumber, Bldg. Mats., Hdwr.	12	28	339	459
Miscellaneous	43	114	786	1,343
RETAIL TRADE..............	493	1,761	3,924	12,722
Food and Liquor	110	498	1,094	2,364
General Merchandise	14	65	80	324
Apparel and Accessories....	49	155	303	1,022
Furniture, Furnishings.....	24	92	180	730
Lumber, Bldg. Mats., Hdwr.	20	99	202	753
Automotive Group.........	38	111	274	874
Eating, Drinking Places....	158	448	1,242	4,449
Drug Stores	26	120	263	763
Miscellaneous	54	173	286	1,443
CONSTRUCTION	164	399	2,376	5,455
COMMERCIAL SERVICE	119	237	3,488	4,995
Highway Transportation ...	37	52	1,094	1,302
Misc. Public Services.......	0	8	0	1,214
Hotels	5	11	1,627	209
Laundries, Cleaning, Dyeing	22	82	351	1,642
Other Personal Services.....	29	43	170	339
Business, Repair Service	26	40	246	289

MARKETING

(Continued from page 11)

balance. If they do not the sample must be reviewed and action taken to bring it into balance. At the present, new methods of validation are being developed which, it is hoped, will provide more critical controls over samples and thus make possible even better results.

A second problem turns about the two leading methods of taking a sample. These are known as the "quota system" and the "address system." For either system certain cities, counties, or areas are first determined as representative of other similar areas. After such areas have been selected, the research worker sends into the area an interviewer with instructions covering the total number of people to be interviewed. This total is also broken down by income level, age, sex, and so on. This is the quota which the interviewer is to fill. His work is considered to be satisfactory if he finds the given number of people meeting each of these definite specifications.

It is charged that the method is open to the bias of the interviewer because he makes the final choice. To some extent this is true, but more important than the bias of the interviewer are other elements such as the character and the responsibility of the interviewer. In the address system the individuals to be interviewed are determined through the use of maps on which certain blocks in a city, for example, are indicated by lot and in turn certain houses in the chosen blocks are to be called upon in making the interviews. Such a plan is designed to leave relatively little to the discretion of the interviewer. On the other hand, it involves much preliminary work of a census character and frequently a very elaborate set of instructions for the interviewer. It tends to be much more expensive than the quota system. Both systems have been made to yield excellent results. It seems, at the present moment, that there will finally emerge some kind of a compromise between these two systems which will provide high quality results at a reasonable cost.

Because sampling is essentially a scientific tool based upon mathematical theories, a dilemma is often presented to the executive which can be phrased: "Too much mathematics or too little?" He is assured by those who take the technical approach that the to him un-

The product was a success—

THE COMPANY FAILED

Sounds contradictory, doesn't it? But as everyone knows, poor public relations can kill business as surely as poor products.

That's why farsighted executives are devoting more and more effort to "selling" their companies as well as their companies' products. And they're doing both big jobs the same way—through advertising.

You can depend on The New York Times to build good-will just as it builds sales. In The Times your public relations advertising will be seen by hundreds of thousands of intelligent men and women, in thousands of cities and towns, from coast to coast—the kind of people whose private opinions exert a strong influence on the public opinion of America.

The New York Times

"ALL THE NEWS THAT'S FIT TO PRINT"

intelligible mathematics must be present or the resulting work will be useless. The danger is that the mathematics will swamp the horse-sense approach to the problem. On the other hand, too much rule of thumb divorced from a fine appreciation of the theoretical background of this scientific problem courts disaster.

The practical difficulties of trying to find out facts from a population in which no two people are identical, either as persons or in their habits, have caused the creation of ways of doing marketing research with checks and double checks which have produced excellent results. Nevertheless, leaders in this area of scientific experimentation protect themselves by frequent discussions of the theoretical side of the problem.

Akin to Science

There is one final area in which the executive can give much support and help in approaching problems of marketing research. This is by understanding that such research has all of the characteristics of scientific experimentation. The first step in this has already been noted and will bear repeating since it is the first step in any scientific investigation. This is to painstakingly and precisely define the problem, for until this is done it is impossible to expect that the results obtained will measure up to expectations.

In the next place, administrators know that the job of organizing research usually is a long and painful process. A fine piece of research, for example, in physics, which produces new important developments in radio, may require literally months for its planning and for the building of the experimental apparatus. By contrast the data may be obtained from the experiment in the matter of hours. To be sure, the data are the prime objective of the whole experiment, yet they cannot be obtained without the laboriously time-consuming preliminary work. Marketing research follows such a pattern.

There is, finally, the problem of the interpretation of the data. As the science of marketing research develops more skill will have to come into this part of the work. Some of the analyses will be highly technical and such cases again will require a wise balance as to whether there is too much mathematics or too little. The results of this part of the work again have to be judged in terms of their practical value and their cost.

MAN TALKING TO HIMSELF . . . AGAIN

Just today I realized . . . Johnny has been dead for more than thirteen months. Didn't even remember the anniversary date. And if Johnny's mother did, she didn't let me know. Never thought I'd overlook it. The war didn't really start for me until Johnny died. Too busy lately to think about myself. I guess that's good.

We gave up the house. My wife spends her days in the Veterans Hospital, acts as if a ward of wounded was just light housekeeping. Women certainly show the stuff in the pinches!

We have a lot of company these days . . . The Ames have lost both boys. Young Hargrave, who wanted to fly. Doc Smedley died in the Navy, left a wife and three little ones. The crazy kid who used to deliver our groceries, and clip the corner of our lawn with his Ford, died at Saipan. Five of Johnny's class are gone. Eleven gold stars on the flag at the plant . . . *God knows what the final score will be in this town alone* . . . Then there's Ernie.

ERNIE is the little Austrian headwaiter at the hotel. Talked to me for years. The weather, baseball scores. The calves' liver is very nice today. Stuff like that. I had him sized up as lighter'n last summer's straw hat.

Our papers played up big the bomber pilot who brought back the shot-up Liberator that caught fire. He made the crew bail out, then turned back and dropped in the Channel so the burning ship wouldn't fall in the town . . . Captain Paul Bloch, local boy, twenty-three, big football man at State College. A flock of decorations, and the Congressional Medal, posthumous . . . You could have flattened me with a ladyfinger when I found out he was Ernie's son.

Next day at lunch I told Ernie I was sorry, how tough it was to die at twenty-three.

Ernie brushes off crumbs with his menu. "Ya, ya. Too bad, too bad. But it's hokay."

I didn't get him. "What's okay about it?"

"Lissen. You do not understand maybe," said Ernie. "Paul was a fine boy. His mama and me—very proud, but not sorry. Paul has a goot home, fine clothes, education. He is never hungry, grow up six feet tall, hold up his head like a nobleman. In high school, he is smart, plays games, dances with the girls.

"PAUL goes to University. Nobody says what's waiter's son doin' in University. *Die herren* professors do not ask. Paul plays goot

football. People huzza like he is opera singer. He gets the diploma *maxima cum laude*, highest honors. My son can walk with learned men.

"We have the war. Paul says he will be a flier. Does the Army say who is this waiter's son who would be *offizier*, send him back to the kitchen? No. Paul flies. My wife and I go to Allabomma, Maxwell Field. We see a high general give Paul his wings, and the certificate which makes him *offizier*. It is greatest honor ever come to my family.

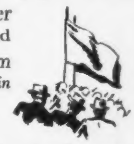
"Soon he is first lieutenant, captain, squadron leader. His letters say he is happy. We do not learn of his honors until later. He dies a hero. I will die a waiter . . . But, Mister March, Paul's twenty-three years in this country is a

better life than two hundret years in the old country. So why should I be sorry for my son?

"IN Europe, it did not pay to believe too much in anyt'ing. As you get older, you find it is foolish to hope. Without belief that t'ings get better, without hope, peoples or countries do nodding, expect nodding.

"In this country a man cannot believe too much, because the t'ings he believes come true. You see them. People are free. No position is *verboten*. Opportunity is real. I know! I come here as busboy, fifteen dollars a month. Today I can stop work, live the rest of my life on my savings. But more than money was my Paul! Paul had all the good things in life I could wish for anybody.

"Maybe this time, this war gives liddle people in Europe to believe truly. To hope. To trust each other. If there is peace for good, then Paul does not waste his life. The treaty, the *realpolitik* is only words and papers. Unless we *Amerikaners* make the other peoples believe and hope and trust each other! . . . Hmmm hmmm. Chicken hash *au gratin* is nice today, no?"



THE chicken hash was okay, but I was too choked up to enjoy it. I still can't get over getting the gospel from a headwaiter . . . and one who knew better whereof he spoke.

I still think we have to have armed force, and a spell as a field soldier for every able-bodied young guy, and make the Germans and Japs walk a chalk line. Just for insurance . . . But it's also pretty plain any peace treaty isn't worth a damn if it doesn't have faith, hope and charity wrapped up in the whereases, and in us.

Why shouldn't we dust off those old early American words such as liberty, rights, justice, opportunity . . . and peddle them to the rest of the world again? They work over here. Not always a hundred percent, but what ever does? The world is getting a pretty good object lesson in how they work, in the boys we send overseas. And if the world has many Ernies in it, we've got some quick customers—enough, anyway, to make the pitch.

But if we just sit back and say the hell with it . . . we make suckers of Johnny and Paul and the others on those casualty lists. Nobody ever lost his life for the privilege of being cynical. And after millions have cashed in for ideals, who are we Amerikaners to sell 'em short!

PITNEY-BOWES POSTAGE METER CO. • STAMFORD, CONN.

Originators of Metered Mail, world's largest manufacturer of Postage Meters, which print postage for business mail . . . now devoted to war production.

HERE *and* THERE

Surplus Standards—A handbook establishing the basic standards to be followed in describing surplus property in inventory reports is being prepared for the Surplus War Property Administration by the War Production Board. This presents the minimum information which should be shown in preparing reports of surplus in order to describe adequately such property for disposal purposes.

The handbook is divided into 22 sections. There are now available only Section 1, Metals and Metal Products, and Section 2, Wood Basic and Finished Products (in one pamphlet, 40 pages, 6 by 9 inches, 10 cents, Superintendent of Documents, Government Printing Office, Washington 25, D. C.).

Models Teach Safety—Appealing to the average adult's love of mechanized toys, two steel companies are using working models of cranes to teach the fundamentals of safety.

The Youngstown Sheet and Tube Company has constructed a model crane which is equipped with every type of safety feature, including fire extinguishers, warning signs, and safety guards. Provided with a limit stop and

regulation controls, the crane is used in training classes. New operators learn how to handle loads with the fewest number of movements and how to avoid taking chances which might result in injury to workmen on the floor below.

A working model of a large overhead crane also is used in safety lessons at the Edgar Thomson Works of the Carnegie-Illinois Steel Company. Richard V. Milligan, plant safety instructor, devoted more than 300 hours of his leisure time to constructing in his home workshop this toy-size crane which is complete to every moving part and safety feature.

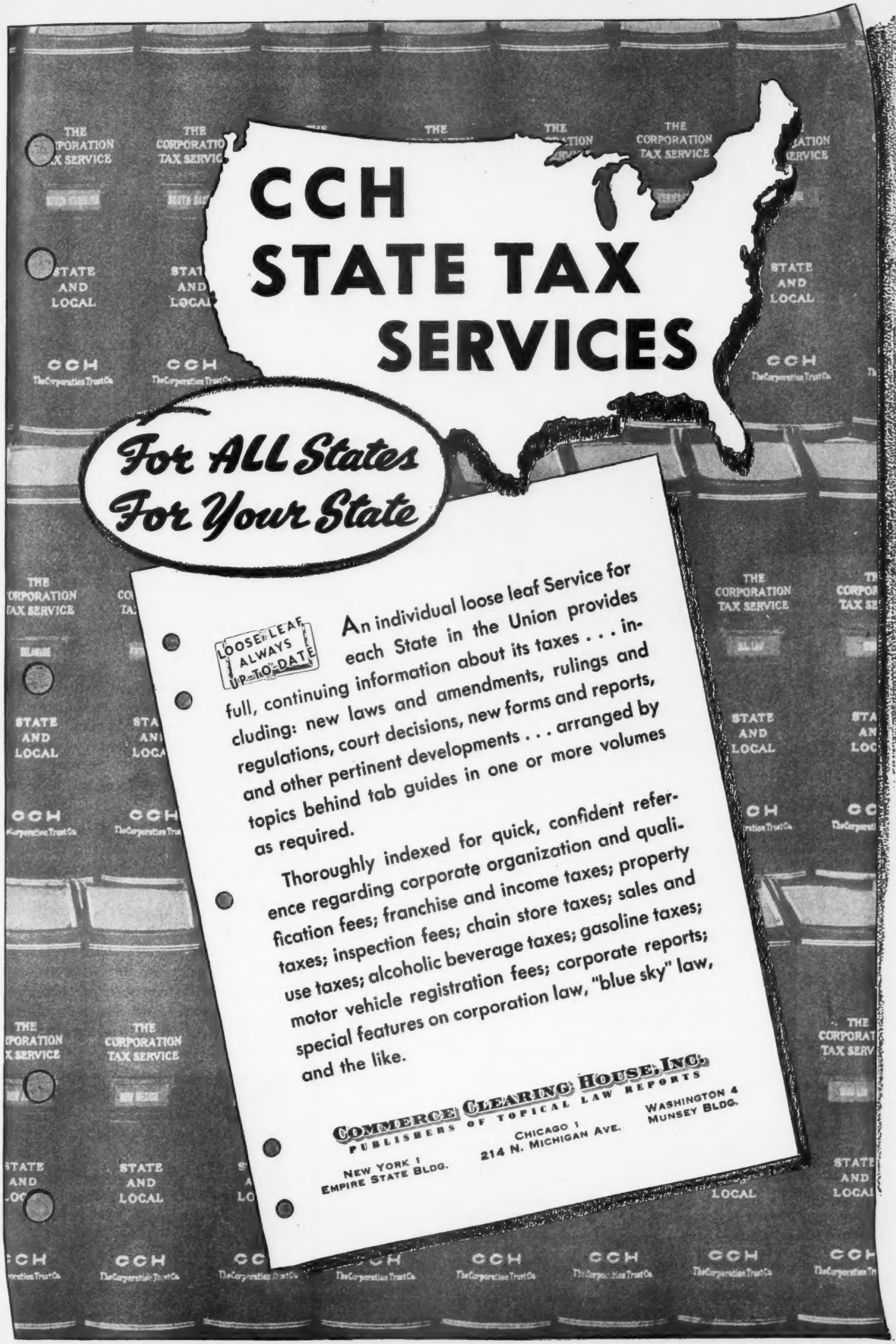
Mr. Milligan likewise built a model which would illustrate the most hazardous working situation he could create. Presented at plant safety meetings, the misadventures of a puppet worker provide pointed safety lessons as well as a number of laughs. One cause of misfortune in this slapstick model is the worker's habit of wrapping the free end of a pulley rope around his arm.

Technical Roster—Employers seeking workers with special or technical skills or aptitudes may obtain knowledge of discharged veterans thus qualified from Philip P. Marenberg, executive officer, National Roster of Scientific and Specialized Personnel, 1006 U Street, N.W., Washington 1, D. C.

Organized as a part of the War Manpower Commission in 1940 to locate technically and specially trained men of all kinds for the defense effort, it listed the skills, experience, and aptitudes of 600,000 professional men and engineers. With their war jobs done, various specialists are returning to civilian life and the roster may be called upon to reveal which of these are available now or soon.

Post-War Jobs—Workers are not showing too much concern over the question of post-war jobs if the experience of the Crosley Corporation, Cincinnati, may be judged as typical.

Instituting a post-war re-adjustment plan, Crosley through its employee publication presented the most complete picture which it could of manufacturing prospects for the company's products and provisions being made for entering foreign markets, for rehiring veterans, for placement of personnel in dealer and service organizations, and for a labor-management board to help employees to locate out-


CCH
STATE TAX
SERVICES
For ALL States
For Your State
LOOSE LEAF ALWAYS UP-TO-DATE
An individual loose leaf Service for each State in the Union provides full, continuing information about its taxes . . . including: new laws and amendments, rulings and regulations, court decisions, new forms and reports, and other pertinent developments . . . arranged by topics behind tab guides in one or more volumes as required.
Thoroughly indexed for quick, confident reference regarding corporate organization and qualification fees; franchise and income taxes; property taxes; inspection fees; chain store taxes; sales and use taxes; alcoholic beverage taxes; gasoline taxes; motor vehicle registration fees; corporate reports; special features on corporation law, "blue sky" law, and the like.
COMMERCE CLEARING HOUSE, INC.
PUBLISHERS OF TOPICAL LAW REPORTS
NEW YORK 1
EMPIRE STATE BLDG.
CHICAGO 1
214 N. MICHIGAN AVE.
WASHINGTON 4
MUNSEY BLDG.
THE CORPORATION TAX SERVICE
STATE AND LOCAL
CCH
The Corporation Trust Co.

side the company in the kind of work most to their liking.

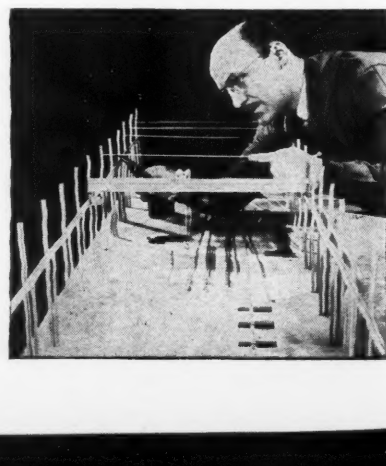
Employees then were asked to fill out a questionnaire carrying such queries as whether they planned to continue work for the company or to get a job elsewhere, whether they planned to go into business for themselves, or whether they intended to move out of town. They also were asked for their working experience, education, job preference, and for suggestions which might help in outlining the employment problem that would have to be faced and in meeting that problem.

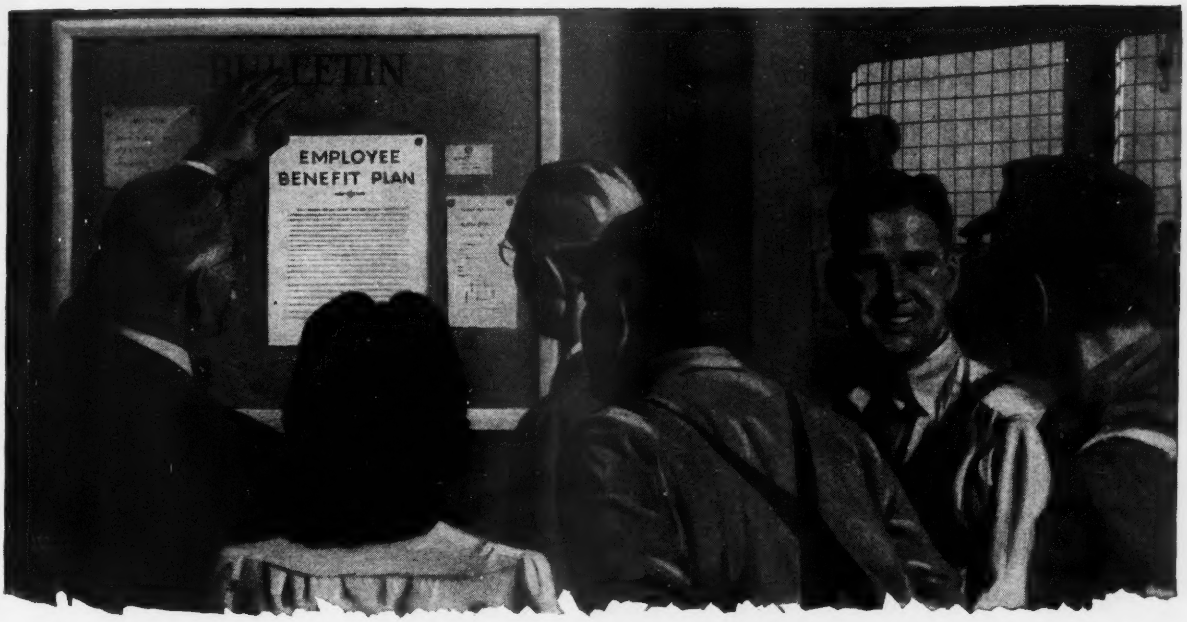
The company mailed 9,022 blanks to employees at their homes, enclosing a reply envelop. Of the 2,796 questionnaires returned, 95 per cent stated that the respondent was interested in staying with Crosley.

Greeting Visitors—The word "Welcome" stands out prominently on the doorstep in a night photograph of the office entrance of Elliott Company, Jeannette, Pa., used as the cover of a 4-page 5 by 8 inch folder to acquaint visitors with the company. Brown ink is used for the cover and chrome yellow and black on the inside spread.

A brief history of the company, a summary of its products, and the names of company officials and chief executives in the various departments are found on the inside pages. A map on the back reveals the location of other local industries together with their street addresses and telephone numbers.

Three-Dimensional Planning—Universal acceptance during the next decade of industrial plant layout planning through the use of three-dimensional engineering models, is predicted by R. W. Mallick, section engineer, Westinghouse Electric & Manufacturing Company. The three-dimensional scale model system both for planning of new factories and the re-arranging of present plants for greater efficiency





HOW THE *Chase* CAN HELP IN AN

Employee Benefit Program

Whether your organization is large or small, the staff of the Chase Pension Trust Division is qualified by experience and research to assist in the planning of

1. *The benefits to be granted*—retirement, disability, death, severance.
2. *The type of program to be installed*—pension or profit-sharing.
3. *The vehicle of financing to be employed*—group or individual insurance company contracts or general market securities or some combination thereof.
4. *Administrative procedure*—provisions and operations.

If your program is to be soundly financed through a trust invested in insurance company contracts or securities or both, the appointment of the Chase as corporate trustee secures the advantages of expert, permanent, impartial and economical administration of the trust.

Our 92-page summary entitled "Pension, Bonus and Profit-Sharing Plans," covering the fundamentals of formulating and financing employee benefit plans is available. We invite you or your consultant to write for this study and to discuss your particular case with us—without obligation.

THE CHASE NATIONAL BANK

OF THE CITY OF NEW YORK

Pension Trust Division

11 BROAD STREET — *Telephone HAnover 2-9800* — NEW YORK 15

is used by numerous divisions at Westinghouse.

"Construction in miniature before ground is actually broken for a new plant provides management with a comprehensive and easily understandable view and does away with all elements of guesswork," said Mr. Mallick.

"In presenting plans quickly and accurately to (Westinghouse) company officials who must give final approval, in helping the engineer remember that he is working with cubes rather than squares, in presenting the sense of depth and form to all who have anything to do with construction, the miniature scaled models or 'industrial dollhouses' now do a thorough job."

The models are made of wood, scaled ¼-inch to the foot. After the war, when metals are not so critical, they will be made by pouring metals into molds and the figures of men and machines will be kept in a "bank" from which they may be drawn for use.

Waives Celebration—Formal celebration of its recent twenty-fifth anniversary was postponed until after the war by the Wright Aeronautical Corporation, Paterson, N. J. It sent out announcements stating "Since the urgency of our war production precludes formal observance of this date, we invite your attention to this occasion now and hope you may be able to join us in a silver anniversary celebration to be announced after the cessation of hostilities."

Civic Planning—A comprehensive survey designed to find jobs for returning service men and to initiate a long-range civic, commercial, and industrial post-war planning program for the City of Valdosta, Ga., and the surrounding county, has been completed by the Valdosta and Lowndes County Chamber of Commerce.

A questionnaire was sent to all households in the county to determine what new construction, repairs, and alterations, and what purchases of durable and semi-durable goods would be made by residents within two years after the war. Those questioned also were asked to state preferences relative to civic and educational improvements and to give other miscellaneous information. All members of the armed services from these communities were canvassed as to their post-war plans.

The survey revealed that the number of persons whose jobs will terminate with the ending of the war including the men and women in the armed ser-

PAY CHECKS

can't wait!

Wage facts are the hottest figures in business. Intricate rate structures, variable hours, multitudinous deductions, governmental reports, and labor distribution, combine to complicate and retard payroll computation . . . but pay checks can't wait!

● Remington Rand Punched-Card Wage Accounting methods have simplified and speeded payroll procedures for many concerns. This modern method has but one human function: that of punching the basic cards. From there on, even to the writing of the checks, with all data recorded and all deductions made, it is completely automatic and mechanical—assuring positive accuracy at the rate of 6,000 pay checks an hour!

Here's how Lake Washington Shipyards, Houghton, Wash., prepares *all* its payroll data, labor distribution, government reports, deductions, registers, and checks for over 8,000 employees in 32 hours *and at a labor cost of one-quarter of 1%:* "Our pay period ends at 8 A. M. Monday. Time-keepers turn in their last time sheet two hours later. The weekly payroll, including registers and checks, is completed Tuesday night. Close cost inspection and prompt acceptance by Navy officials make financing easier and evidence the smoothness and efficiency with which our payroll procedure is functioning under the punched-card method.

"Our installation of Remington Rand Punched-Card Accounting and Tabulating Machines has worked out so successfully that it has become the foundation not only for our payroll, labor distribution and customer billing, but also for our vital material and production control. We produce and maintain up-to-the-minute records with great enough speed to make them of the utmost value."

If your payroll and related reports are taking too long or costing too much to prepare, ask for Certified Report #4308-3B and learn the details of the Lake Washington Shipyards procedure. Copies of this report will be sent free to interested executives by writing to our branch office nearest you, or direct to Remington Rand Inc., Tabulating Machines Division, New York 10, N. Y.

• KWIK-FAX •

Only REMINGTON RAND can calculate and print 6,000 pay checks an hour — *accurately!*

The Remington Rand Type 310 Multi-Control Reproducing Punch is the only machine that will automatically and accurately prepare individual payroll-earnings cards from either or both summarized time-cards and detail job-cards . . . punching into each card the employee's name, clock number, Social Security number, gross earnings, all deductions and net pay—*at the rate of 6,000 cards an hour!* Data changes can be incorporated with a minimum of effort and time.

Payroll checks, complete with employees' statement of earnings and deductions, are then printed from these cards at the same 6,000-an-hour speed—fastest in the industry.

No wonder business is fast adopting Remington Rand Punched-Card Methods to gain speed and accuracy in Payroll Accounting.

* METHODS THAT KEYNOTE THE FUTURE OF BUSINESS

Remington Rand

PUNCHED-CARD ACCOUNTING

* The HOLE MARK of a System
. . . the Symbol of Accuracy

***Write for:* "The HOLE-STORY of Punched-Card Accounting"—**
the book that tells a vital story to business. It's FREE!

BUY BONDS—Buy Victory and Peace

vices is 2,252, plus 278 whose jobs will indirectly terminate or who will start work for the first time. A total of 523 persons plan to go back to their old jobs, 338 will complete their education or take vocational training, while 159 in the armed services do not plan to return to the county.

As a result of the questionnaire it was found that jobs to be created by planned new construction, repairs, and alterations would absorb 635 people, while a total of 1,213 jobs were turned up by canvassing all businesses and industries in the county and part of the farmers. The final result showed that there will be 33 surplus jobs for male whites in Valdosta and Lowndes County, 47 for female, and 293 surplus jobs for male negroes. But 15 jobs will be needed for negro women: it is estimated that these will be available in domestic service or in seasonal employment in the cannery.

Termination Manual—A comprehensive manual on contract termination procedure, prepared by Jack & Heinz, Inc., Cleveland, for use of its vendors and subcontractors, contains numerous working diagrams and forms, details the exact steps and procedures following notice of termination, and concludes with the method for filing the claim in a form acceptable to the Government. It consists of 137 pages, 8 by 11½ inches, bound in artificial leather.

The manual, by J. Allen Praether, director of the contract termination department, emphasizes "how" the complications of contract termination can be met. It explains to subcontractors what their position will be upon termination, what they should do, what their rights will be and how to protect them, how to secure financial relief, and how to meet other needs.

Government War Plants—Industrial plants and plant sites owned by the Government, regardless of whether they have declared surplus or not, are catalogued by States, in an advance listing prepared by the Surplus War Property Division of the Defense Plant Corporation, Washington 25, D. C. The purpose of the listing is to enable industry to initiate inquiries and to take action for the possible purchase of such properties and for setting up operation plans in advance. The Defense Plant Corporation thus hopes to speed the conversion of these plants to post-war operations and to keep in as continuous employment as possible the

Positive SQUEEZ-GRIP KILLS FIRE in seconds

Here in four simple hand movements we come to grips with modern fire protection. Carbon dioxide gas, the fastest non-damaging fire extinguishing agent, is stored under high pressure in portable cylinders. The rapid release of the fire killing gas with the new SQUEEZ-GRIP valve saves time and gas. There is no wheel to turn. No need to set the cylinder down to operate it. C-O-TWO gas can be discharged or stopped as quickly as you can close or open your hand. In fact, it's so easy to use that even a woman or a child can operate it and extinguish a fire in seconds.

SQUEEZ-GRIP, originated and developed by C-O-TWO, is now used by all the Armed Forces. C-O-TWO manufactures a complete line of Portables, Hose Units and Smoke Detecting Systems.

KILLS FIRE—SAVES LIVES—*It's Safer—It's Faster—It's Modern*

C-O-TWO FIRE EQUIPMENT COMPANY

NEWARK 1 NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

thousands of workers who operate them.

Negotiations for the purchase or lease of the plants and properties listed will be entered into, subject to contingencies of present contracts and length of time plants will continue in war use. The listing provides data in regard to products; acreage of land and rail facilities; size, type, and floor space of buildings; and machinery and equipment.

V-Belt Drive—With each point illustrated in black and white drawings, contrasting with the green page, a new 12-page 5¼ by 8-inch booklet "19 Reasons Why It Is the Dominant Drive of Industry" effectively presents the basic advantages of the multiple v-belt drive. It also will be of widespread interest to others who prepare booklets because of the clearness of the graphically presented argument and the typographic style. The pamphlet was prepared under the direction of the Engineering Research Committee of the Multiple V-Belt Drive Association, Chicago.

NEW BUSINESS

(Continued from page 15)

Business discontinuances declined considerably after the middle of 1943 and were much lower than before the war. Discontinuances always drop off after a drop in new businesses, because many new businesses have a short life. Entries reached a record low of 31,500 in the first quarter of 1943. During 1943, there were 163,500 business births, or approximately 40 per cent of the number of new businesses started in 1940.

During 1940-1941, business deaths stood at 914,000, about five-sixths of the number in the following two war years. In the same period, new businesses totalled 948,100 and business transfers 560,700. The war seemed to have had little effect on the number of transfers; there were 541,100 during 1942 and 1943; this was slightly less than in the pre-war period.

Information about business births and deaths in the earlier years of this century is found in published information about listings in the DUN & BRADSTREET REFERENCE BOOKS.

From 1900 to 1939 new firms entering

SOUTH AFRICA *CALLING*

PREPARE FOR POST WAR PERIOD!

THE UNDERMENTIONED TRADE REPRESENTATIVES AND TRADERS IN SOUTH AFRICA ARE INTERESTED IN DISTRIBUTING YOUR PRODUCTS

P. O. address box number indicated by (B xxx) – – – (This is a paid advertisement)

CAPE TOWN, S. A.

AFRICAN SHIPPING (Est. 1903). Shipping, customs, insurance, finance brokers, bonded warehouse proprietors. Cables everywhere "AFRICSHIP." Johannesburg (B 3634); Port Elizabeth (B 232); Cape Town (B 3046); East London (B 4); Durban (B 19); Lourenco Marques (B 711); London, London House, New London St., London E. C. 3.

AFRIMERIC DISTRIBUTORS PTY. LTD., 133 Longmarket St. *Manufacturers' Representatives.* Textiles, softs, fancy goods, hardware. Branches throughout Union. Also Belgian Congo, Portuguese East Africa and Rhodesias.

DENT & GOODWIN CAPE PTY. LTD. (B 1446). Customs Clearing and Shipping Agents.

J. W. JAGGER & CO. PTY. LTD., 54-62 St. Georges St. General merchandise.

ALBERT KAHN, 55 Hout St., also Johannesburg, Durban and Port Elizabeth. Soft goods, leather, all factory requirements.

MANUFACTURERS DIRECT SUPPLIES. (B 2470). Household hardware, crockery, glassware, cutlery, brushware, dinnerware, electrical ware.

SAM NEWMAN LTD., 30 Burg St. Hardware, sanitary ware, tools, electrical and household goods.

L. F. RAE & SON (B 442). MANUFACTURERS' REPS. FOODS, GEN. HARDWARE, TOOLS, CHEMICALS.

L. RAPHAELY & SON (B 447). Branches throughout South Africa. Textiles, foodstuffs and all industrial requirements.

ROWLAND CHUTE & CO. LTD. (B 693). Plastics, chemicals, glass crockery, enamel, aluminum ware, builders' hardware, raw materials.

SATCO PTY. LTD., 40 Loop St. Manufacturers' Representatives. Branches throughout South Africa and Rhodesia. All types of merchandise.

S. SLOVIN PTY. LTD. (Late SONVIL PTY. LTD.) (B 2396). Ladies' and men's hosiery and underwear.

J. SOLOMON & SON (B 675). Hardware, soft goods, roughs, machinery, groceries. Branches through S. Africa and Rhodesia.

WM. SPILHAUS & CO. LTD. (B 113). Machinery, household appliances, radios, silverware.

STUTTAFORD & CO. LTD., Adderley St. General merchandise.

STYLEWEAR DISTRIBUTORS PTY. LTD., 40 Loop St. Branches S. A., Rhodesia. Ladies' frocks, coats, costumes, underwear, children's wear, stockings, corsetry, gloves.

TRU PRODUCTS PTY. LTD. (B 1285). South Africa, South West Africa, Rhodesia. High class ladies', men's hosiery, gloves, corsetry, lingerie, cosmetics, rayon, cotton piece goods, knit, sports, infants' wear, haberdashery. Buying office, Herbst Bros., 92 Warren St., N. Y. Buy for own account; act as Manufacturers' Reps.

UNITED AGENCIES (B 1568). All machinery and general requirements for manufacture of bread, biscuits, crackers, pretzels.

DURBAN, S. A.

M. BEIT & CO. (B 2190). Also Johannesburg, Cape Town. Cosmetics, fancy goods, haberdashery, soft furnishings, textiles, hardware, electrical fittings, leather goods, toys, etc.

HAROLD J. DRINN (B 560). Domestic and commercial appliances, switch gear and electrical motors. Cables, conduit and accessories.

HAVELOCK EMSLIE & CO. (B 2606). Textiles, cosmetics, canned foodstuffs, hardware, crockery and motor accessories.

HAWKINS, E. C., & SONS (B 339) Bracket clocks, metal watch bands, flapjacks, brush sets, imitation jewelry. Plastics, alarm clocks.

INDEPENDENT RETAILERS' ALLIANCE LTD. (B 321). Canned and breakfast foods, household hardware.

A. D. KIMBER & CO. PTY. LTD. (B 2303). Tel. address: Kimberco. Scales, weighing machines, electrical goods, lamps, paper, stationery, kitchen, bathroom furniture, fittings, bookkeeping machines, bacon slicers, bread cutters.

O. F. LUBKE PTY. LTD., 15 Hooper Lane. Electrical supplies, heating and cooking equipment.

A. S. MATHER (B 2499). Haberdashery, piece goods, builders' and general hardware, canned foodstuffs.

E. WAYNMAN McKEOWN (B 1436). Food products and general merchandise.

J. M. MOIR (B 849). Asphalt, electrical appliances, ignition and Diesel fuel equipment.

E. S. MOWAT & SONS, 51 Milne St. Johan. and Pt. Eliz. Mechanical and electrical machinery, industrials, bakery, machinery, equipment.

A. A. SAVAGE, 478 West St. Electrical domestic appliances. Motors and wiring equipment.

STEWART & CO. (B 773). Dairy and ice cream plant. Kraft liner and general.

JOHANNESBURG, S. A.

ASSOCIATED PROPRIETARY AGENCIES LTD. (B 4247). Indent and distributing agents for toilet preparations.

AUTOMOBILE ELECTRIC SUPPLY LTD. (B 2964). Storage batteries, automobile and aircraft accessories and replacement parts.

BARRY COLNE & CO. LTD. (B 4130). Machinery and engineering supplies. Foundry equipment and supplies. Woodworking machinery and accessories. Mill supplies.

HARRY L. BEILES PTY. LTD. HOLLANDIA HOUSE, President St. Tooth brushes, hair brushes, imitation jewelry and novelties.

HERBERT E. BOWEN–FRIENDLY ADVERTISING PTY. LTD. (B 3102). Exclusive sales South and Central Africa. Advertising specialties.

H. CANARD & CO. (B 8685). Also C. T. Reps. for S. A. Fancy goods, toys, haberdashery, toilet sundries, jewelry, glassware.

CARST & WALKER PTY. LTD. (B 5500). C. T., Durban. Industrial chemicals, steel products, textiles, food.

COMMODITY AGENCIES. (B 1711). Produce, industrial raw materials, timber.

B. P. DAVIS, LTD. (B 3371). Representing Bauer & Black, Cheesebrough Manufacturing Co., American Chicle Co., etc. Members Johannesburg C. of C., A. M. R. A.

DOMESTIC & FOREIGN TRADE PTY. LTD. (102 Mooi St.) Foodstuffs, groceries and delicacies.

DRUGS & TOILETS PTY. LTD. (B 2801). Patent and proprietary medicines, toilet, druggists' sundries; branches throughout Union and Rhodesia. (Spot cash in N. Y.)

D. DRURY & CO. PTY. LTD. (B 3929). Machine tools, small tools and engineering workshops equipment generally.

FILLERYS PTY. LTD. (B 6560). General sales agents, 14 branches covering South Africa, Southwest Africa, Rhodesia, Belgian Congo, Portuguese East Africa.

FRANK & HIRSCH. (B 1803). Manufacturers' Reps. Cape Town, Durban, Bulawayo, Port Elizabeth. C. of C., A. M. R. A. Textiles, every description, hardware, kitchenware, fancy goods, toys, building requisites, plastics.

FRENCH DISTRIBUTING CO. S. A. PTY. LTD. (B 6681). General Sales Agents and Importers. Pharmaceuticals, industrial chemicals, raw materials, toilet sundries, etc.

FURNITURE ENTERPRISES PTY. LTD., 156 Anderson St. Furnishing fabrics and materials. Linoleum squares and other furnishing lines.

HARRIS & JONES PTY. LTD. (B 3297). Transvaal Agents L. C. Smith and Corona typewriters. Interested in agencies for office machines, equipment and supplies.

HILL & MURRAY PTY. LTD. (B 3070). Proprietary medicines, toilets and cosmetics, grocery and household requisites. Ethical and professional products.

E. HOLDMANN & VIDAL. (B 6111). Branches all principal towns in the Union and Rhodesia. Cotton piece goods and all other textiles, fancy goods, hardware, glassware, bazaar goods.

HOLLYWOOD DISTRIBUTORS PTY. LTD. (B 2597). Woolen, cotton and rayon piece goods, hosiery and underwear.

HOLTUNG, VAN MAASDYK PTY. LTD. (B 6511). Shop and office equipment, electrical goods. Industrial department associate offices Cape Town and Durban.

HUBERT DAVIES & CO. (B 1386). Throughout Union, Rhodesia. Mechanical, electrical, civil engineering.

P. W. JENNINGS PTY. LTD. (B 3543). Also C. T. (B 198). Want direct factory rep. Branded textiles, women's underwear, hosiery, sportswear; fabrics for domestic factories, i.e., neckwear, clothing, underwear, swimsuits; plastic household utilities and fittings. Marketing branded lines, controlled distribution our specialty. Members A. M. R. A.

B. OWEN JONES LTD. (B 2933). Chemicals: heavy industrial, pharmaceutical, laboratory reagents; general laboratory supplies; optical, scientific, control, medical and surgical instruments; steel works and foundry supplies.

KEENE & CO. (B 2883). Cape Town, Durban, members A. M. R. A. MANUFACTURERS' REPS. all types of merchandise. Like inquiries from American, Canadian manufacturers interested in export to South Africa and Union-wide representation.

A. T. LAW & SON (B 5850). Hosiery, towels, ladies' footwear, men's and women's underwear, glassware and kitchenware.

LENNON LIMITED (B 928). Wholesale manufacturing and retail chemists and druggists. (Est. 1850).

LENSVELT & CO. PTY. LTD. (B 2651). Cape Town, Durban, Port Elizabeth, East London, Kimberley, Bloemfontein, Pretoria, Windhoek, Bulawayo and Salisbury. Indent, distributing agents; stockists; sales, marketing specialists proprietary, pharmaceutical, chemist, grocery, stationery.

VIVIAN A. LEON (B 7136). Small tools, hardware, enamelware, kitchenware, crockery, glassware, smokers' requisites, fountain pens and kindred lines.

R. MARCUARD PTY. LTD. (B 8858). Imports, exports Africa, Middle East: raw materials, hardware, industrial chemicals, steel, plastics, paper products, soft goods, foods.

K. R. MENTZ (B 6389). Men's wear, foodstuffs, rayon and cotton piece goods, textiles, furnishing fabrics, etc.

NEWTON'S AGENCIES PTY. LTD. (B 4616). Clothing, all kinds; textiles, headwear, domestic glassware, enamelware, handbags, fancy goods, cosmetics, food products, industrial chemicals, paper products.

H. POLLIACK & CO. LTD., INCORPORATING MACKAY BROS. LTD., MACKAY BROS. & McMAHON LTD. Cape Town, Durban, Port Elizabeth, Pretoria; musical, electrical goods.

CONTINUED IN FIRST COLUMN ON NEXT PAGE→

SOUTH AFRICA *CALLING*

(continued from preceding page)

JOHANNESBURG, S. A. (continued)

PROTEA DISTRIBUTORS PTY. LTD. (B 7793). Surgical, medical, hospital; pharmaceuticals, cosmetics, photographic supplies and equipment.

L. RAPHAELY & SON (B 476). Textiles, foodstuffs, etc.

RAYMOND & MARSHALL PTY. LTD. (B 7447). (Est. 1929). Cape Town, Durban; Southern and Northern Rhodesia, Belgian Congo. Textiles: cotton, rayon, silk; men's, ladies', juvenile underwear, outerwear, hosiery, household linens, furnishings, linoleums, oilcloths.

RAYMONT & BROWN PTY. LTD. (B 7524). Textiles, essences, split oak staves, chemicals, yarns and manufacturing supplies.

E. I. ROGOFF PTY. LTD. (B 7296). Timber, veneer, plywood, hardware, cotton, silk and woolen piece goods, upholstering materials, glassware, fancy goods, builders' and household hardware; adv. novelties.

C. F. SHAW LTD. (B 4372). Factory reps., import, export agents, leading British, American, Canadian manufacturers. Branches or reps. in every British or French Territory in Africa, India, Palestine, Middle East.

SILVERS MOTOR SUPPLIES PTY. LTD. (B 5988). Automobile parts, accessories, garage equipment, tools and machine tools.

SYDNEY SIPSER & CO. (B 6011). Ottawa House, President St. Cable: "Gownsipser." Indent agent, distributors ladies' frocks, coats, sports and underwear, showroom goods, etc.

SOUTH AFRICAN DRUGGISTS LTD. (B 5933). Wholesale chemists, manufacturing druggists, opticians, photographic dealers; fine, industrial, pharmaceutical chemicals.

L. SUZMAN LTD. (B 2188). Cigars, cigarettes, tobaccos, pipes, etc. SUBSIDIARY COMPANIES. Confectionery, foods, toilet, stationery, fancy goods. Nine branches.

TAYLOR & HORNE, 176 Jeppe St. Dental sundries and toilet requisites.

JOHN G. TRAIN & CO., 149 Commissioner St. Also Cape Town, Durban. Cotton and rayon textiles, yarns, hosiery, knitwear, fancy goods, foodstuffs, toys.

VERRINDER LTD., ASSOCIATED WITH S. HARTOGS PTY. LTD. (B 6666). Also Cape Town, Durban, Port Elizabeth, East London, Bloemfontein, Kimberley, Bulawayo, Salisbury and N'dola. Proprietary medicines, beauty preparations and toilet requisites, groceries and confectionery.

WESTDENE PRODUCTS PTY. LTD. (B 2279). Branches Cape Town, Durban, Bloemfontein, Port Elizabeth, Salisbury. 23 Essanby House, Jeppe St. Medical, surgical, hospital, toilet and fancy goods.

PORT ELIZABETH, S. A.

O. S. BLENKINSOP LTD. (B 639). Shoe factories and tanneries supplies, clothing factories requirements, automotive articles.

GILCHRIST'S ELECTRICAL STORES PTY. LTD., Main St. Electrical and radio equipment.

HALLIS & CO. (B 143). Art dealers and picture frame manufacturers. Also fancy goods, pottery and artware generally.

E. J. NARRAMORE, 100 Main St. Builders' and domestic hardware, tools, ironmongery, sporting goods.

NORTHERN RHODESIA

N'DOLA AGENCIES (B 128). N'dola. Hardware, enamelware, dresses, foundation goods, general merchandise.

SOUTHERN RHODESIA

AFRICAN COMMERCIAL CO. LTD. (B 1108). SALISBURY. N. Rhodesia, Nyasaland. Proprietary medicines, toilet and beauty preparations, groceries, confectionery, stationery, office equipment, textiles, etc.

business averaged 21.6 per cent of the listed firms. From 1914 to 1919 there was a steady but slight decline in the number of new enterprises. In the 'twenties the number increased; after the "Great Depression" it decreased considerably; there was a slight rise again in the recovery period of the 'thirties.

From 1900 to 1939 business discontinuances averaged 20.3 per cent of the number of firms listed in the DUN & BRADSTREET REFERENCE BOOKS. In each year of this period the number of discontinued businesses was lower than the number of entries into business except for 1917 and the early 'thirties when business deaths exceeded births. Again during the present war period, discontinuances jumped well above business entries.

The new comprehensive work of the Department of Commerce offers valuable information as to business population variations within industry and trade classifications. From the third quarter of 1929 to the third quarter of 1939 declines occurred in the finance, mining, manufacturing, and contract construction groups; for these four major industry and trade groupings combined the decline was 91,800 firms or about 24 per cent. In the same period there were increases in the four groups, retail trade; wholesale trade; service industries; and transportation, communication, and public utilities; for these the decline totalled 348,500 firms or about 16 per cent.

"Similar variations in the make-up of the business population are evident from an analysis of the various kinds of business within each of the several major industrial groups. For example, during the period 1914-1937, out of 204 manufacturing industries, 109 showed declines in number of establishments totalling 28,916—whereas 95 showed increases aggregating 20,386.

"Similarly, of the 67 industries classified within the service trades, 24 registered a decline in number of establishments during the period 1935-1939 amounting altogether to about 33,000, and 43 registered an increase totalling about 47,000 establishments. Similarly of 21 lines of retail trade, 12 showed a decline in number of stores totalling 134,994, and 9 showed an increase amounting to 428,984.

"In each of the three industrial groups studied—manufacturing, service trades, and retail trade—there were 27 business classifications in which the increase in number of establishments exceeded 100 per cent within the peri-

ods studied. On the other hand, there were 67 kinds of business in which the number of establishments decreased by 25 per cent or more."

After 1939 the number of firms in each of the major industrial and trade groups increased to a peak in the third quarter of 1941; this movement upward was retarded in 1940 and early 1941 with all groups except manufacturing, mining, and quarrying declining slightly below 1939. After 1941 the number of businesses in most industrial groups, with the exception of manufacturing and mining, declined to about the same degree.

The number of retail firms increased from 1,601,400 in the third quarter of 1939 to 1,620,800 in the third quarter of 1941 and then dropped off to 1,330,400 in the same period of 1943; this represented a drop of 17 per cent between 1939 and 1943. Similarly in the same quarter, the number of service industries increased from 638,700 in 1939 to 643,800 in 1941 and then dropped off to 554,300 in 1943, or a drop of 13 per cent between 1939 and 1943. The decline for the other industrial groups—contract construction; wholesale; finance, insurance, and real estate; and transportation, communication, and public utilities—followed the same pattern between 1939 and 1943 with percentage decreases of 22, 21, and 9 per cent respectively. In manufacturing, mining, and quarrying the number of firms totalled 235,600 in 1939, increasing to 249,200 in 1941 and to 254,800 in 1943; this was an increase of 8 per cent between 1939 and 1943.

In the 1939-1943 period of these major groups of businesses, contract construction underwent the greatest decrease in numbers followed by wholesale and retail trade; services; transportation, communication, and public utilities; and finance, insurance, and real estate. In contrast the number of firms in the manufacturing group and in the mining and quarrying group increased. There was a general levelling off in number of firms in the last quarter of 1943 and slight turn upward in retail and wholesale trades and in service industries in the first part of 1944.

This slight downward tendency in 1940 was significant for almost all retail lines with most again rising to a peak in 1941 and then dropping off until the third quarter of 1943. In the upturn at the end of 1943, the line that increased most was filling stations, followed by automotive and apparel stores. The retail lines that had the largest declines between 1939 and 1943 were appliance and radio stores, meat

Those of you who have known the delight of travel on Moore-McCormack Lines—whether to the fascinating wonders of South America's East Coast or to the pre-war picture-book lands of the Baltic Sea—must carry in your minds more than one such memory of luxurious days at sea. . . . So do we.

All the responsibilities imposed by war have not made us forget the things Moore-McCormack Lines stood for in days of peacetime travel—fine ships, meticulous service, exhilarating activities programs, interesting itineraries. Nor have we ever lost the vision of what such travel standards will mean in a world returned to peace.

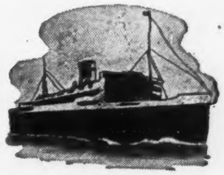
For months now we have been working on practical plans designed to improve post-war travel—to help more people enjoy the pleasures of shipboard life and see the things that make other nations interesting. The one big factor which has hitherto prevented many people from knowing such enjoyments has been lack of time. We are now seeking to establish programs whereby the man or woman with a two or three weeks vacation can see Rio de Janeiro or Buenos Aires or Stockholm or Leningrad and can also benefit by leisurely holidays at sea. To bring this about, we are proposing the establishment of integrated sea and air services, through which planes will complement and extend the utilization of our ships, and thereby further develop both air and sea travel.

After the war, our nation will be, more than ever, a living part of a world society. The people of our country, as well as those of the countries we serve, will want, as never before, to see and know this world. We intend to be ready to turn those desires into realities.

Travel must wait on Victory . . . War Bond purchases bring Victory nearer . . .
BUY WAR BONDS TODAY!

MOORE-McCORMACK *Lines*

5 Broadway, New York



AMERICAN REPUBLICS LINE . . New York, Barbados, Trinidad, Rio de Janeiro, Santos, Montevideo, Buenos Aires

PACIFIC REPUBLICS LINE . . . . San Francisco, Los Angeles, Rio de Janeiro, Santos, Montevideo, Buenos Aires

AMERICAN SCANTIC LINE . . . . New York, Oslo, Gothenburg, Copenhagen, Gdynia, Stockholm, Helsingfors, Leningrad

markets, and filling stations. The smallest declines were in home furnishings and equipment and general merchandise stores. This same tendency from 1939 to 1943 prevailed generally for most service lines. The laundries classification has been the only one to increase in number of businesses since the third quarter of 1943.

The expansion of the war program had a significant effect on the trend of the manufacturing lines. The industries that changed most completely to war production were the ones in which there was the greatest increase in number of firms from 1939 to 1943. Machinery and transportation equipment had the largest rise, followed by lumber, ferrous metals, chemicals, and non-ferrous metals; the number of rubber products firms declined 26 per cent. While the number of all the non-war industries—except stone, clay, and glass which declined 33 per cent—increased from 1939 to 1943, the gain was slight ranging from 1 per cent for food products to 8 per cent for apparel, leather, and textile products.

The consequences of war production on the number of business births and deaths in industry were most notable in the manufacturing industries. New manufacturing concerns totalled 30,800 in 1940, rose to 33,800 in 1941, and then dropped to 25,600 in 1943. The death rates of manufacturing and mining industries followed the pattern of all industries. The number of manufacturing firms discontinuing business in 1940 was 27,300, dropping irregularly to 23,200 in 1943. Thus the number of births exceeded the number of deaths by 1,100 firms; the level of both births and deaths in this period was below that of pre-war years.

By lines in 1943, the number of discontinued manufacturing firms in the food group exceeded entries; this was also true in textile mill products, apparel, chemicals, rubber products, leather, metals, and automotive industries. Entries exceeded discontinuances in the furniture, paper, printing, stone, clay, and glass products, electrical machinery, and other machinery.

The contract construction group had the highest birth and death rates of any other group; this was explained by the fact that concerns organized temporarily to carry on specific construction projects were included. The changes in business transfers were negligible.

From 1940 to 1943 retail trade had the lowest birth and death rates of any of these major groups of businesses.

The number of new concerns declined appreciably from 107,300 in 1940 to 38,200 in 1943. Along with this decline was an increase in business deaths. Deaths rose from 106,400 in 1940 to 228,800 in 1942, but in 1943 dropped to 147,200. There were more discontinued retail businesses in 1943 than in 1940, with the greatest increases among eating and drinking places, food and liquor stores, and apparel stores. Among automotive and general merchandise stores the increase in discontinuances was less. New retail businesses were fewer in all lines in 1943 than in 1940.

High birth and death rates of the transportation, communication, and public utilities group occur because the group includes small truckers, bus operators, and taxicab companies.

Information about the sizes of businesses is presented in considerable detail in this new Department of Commerce work. For census years and for recent years (beginning with 1940) such data are available by number of employees.

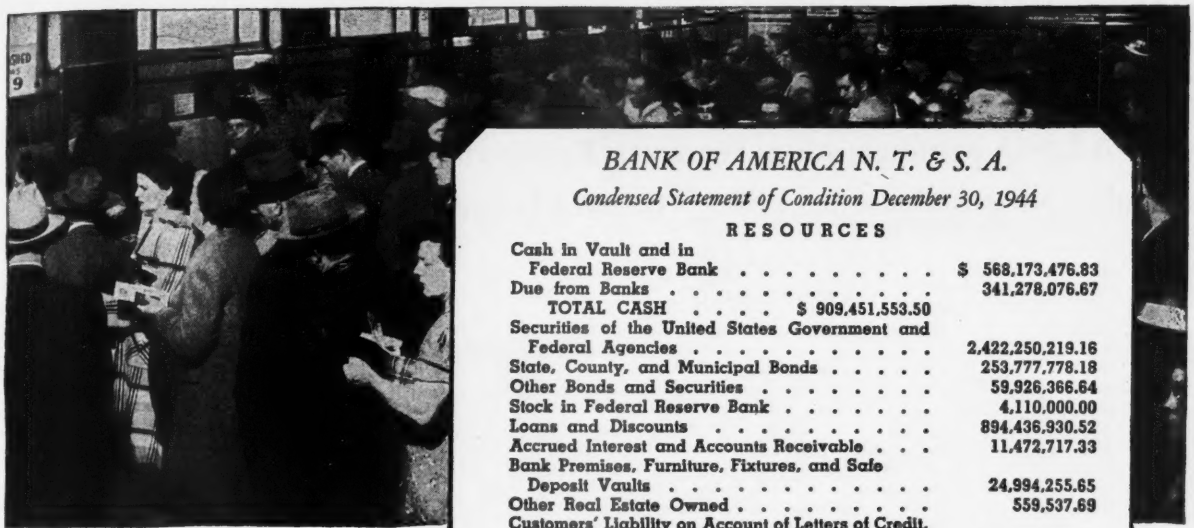
For other and earlier years less detailed conclusions are reached in the proportionate importance of large and small business by using all available information, especially that from corporate tax returns.

The conclusion reached for the years previous to 1939 are: "(1) that the relative importance of the small business sector of the economy generally declined during the period between World War I and the Great Depression, and (2) that between 1932 and 1939 little change in the relative position of small and large firms occurred."

Large manufacturing establishments gained in importance between 1914 and 1929, but declined between 1929 and 1939. As measured by the number of wage earners the largest 25 per cent of the manufacturing establishments employed 86.9 per cent of all manufacturing wage earners in 1914; 89.5 per cent in 1929; and then dropped slightly to 88.6 per cent in 1939.

For all industries and trades, the total number of employees in the smallest 75 per cent of enterprises declined from 11.8 per cent on September 30, 1942. Employment in the next 20 per cent of firms dropped from 18.2 to 14.3 per cent, while that in the largest 5 per cent of firms increased from 70.0 to 76.3 per cent, reflecting the wartime growth in the operations of large business.

Those firms having 125 or less em-



BANK OF AMERICA N. T. & S. A.

Condensed Statement of Condition December 30, 1944

RESOURCES

Cash in Vault and in Federal Reserve Bank		$ 568,173,476.83
Due from Banks		341,278,076.67
TOTAL CASH	$ 909,451,553.50	
Securities of the United States Government and Federal Agencies		2,422,250,219.16
State, County, and Municipal Bonds		253,777,778.18
Other Bonds and Securities		59,926,366.64
Stock in Federal Reserve Bank		4,110,000.00
Loans and Discounts		894,436,930.52
Accrued Interest and Accounts Receivable		11,472,717.33
Bank Premises, Furniture, Fixtures, and Safe Deposit Vaults		24,994,255.65
Other Real Estate Owned		559,537.69
Customers' Liability on Account of Letters of Credit, Acceptances, and Endorsed Bills		17,816,420.29
Other Resources		328,353.72
TOTAL RESOURCES		**$4,599,124,132.68**

LIABILITIES

Capital:		
Common (4,800,000 Shares)	$ 60,000,000.00	
Preferred (404,278 Shares)*	8,085,560.00	
Surplus	107,000,000.00	
Undivided Profits	33,779,200.87	
Reserve for Increase of Common Capital	3,914,440.00	
Other Reserves	6,381,177.62	
Preferred Stock Retirement Fund	162,053.65	
TOTAL CAPITAL FUNDS		$ 219,322,432.14
Reserve for Bad Debts		9,068,878.35
Deposits: Demand	$2,732,589,013.83	
Deposits: Savings and Time	1,607,950,674.25	4,340,539,688.08
Liability for Letters of Credit and as Acceptor, Endorser, or Maker on Acceptances and Foreign Bills		18,536,262.82
Reserve for Interest Received in Advance		3,426,918.56
Reserve for Interest, Taxes, etc.		8,229,952.73
TOTAL LIABILITIES		**$4,599,124,132.68**

** Issued at $50 ($20 Capital—$30 Surplus), Annual Dividend $2. Preferred to extent of and retirable at issue price and accrued dividends.*

This statement includes the figures of the London, England, banking office.

BUILT BY 3 MILLION CALIFORNIANS

● The creation of a four billion dollar bank in California in forty years does not mean the erection of a huge steel and stone structure to store dollars. It means the development of a statewide institution for public service through the support of the millions of people whom it serves. It means service through nearly 500 branches and 45 military and special facilities in more than 300 communities. So declares A. P. Giannini, founder of Bank of America.

"Our bank was organized to give service to the many rather than the few," he says. "In a real sense we are the bank of the people; in other words, ***the little fellow's bank."***

OWNERSHIP OF THIS BANK rests in the hands of approximately 144,040 stockholders (as of Nov. 15, 1944), including 10,800 employees. Average holding per stockholder is 27.77 shares.

SAVINGS ACCOUNTS AVERAGE about $770. More than one and a half billion dollars of this bank's total deposits represent the savings of nearly two million residents of California.

TOTAL DEPOSITS (savings and commercial) represent approximately 3,000,000 accounts, averaging about $1400 per account.

LOANS TO BUSINESS, small and large, and to individuals and farmers, form a large part of this bank's lending activity. The average loan to business in 1944 was $4800. The average personal loan was $222.

At the end of the year, Bank of America had 430,000 loans out to the people, business establishments and war industries of the state. Through the purchase of securities, more than two billion dollars was on loan to the United States Government.

●

THIS IS STATEWIDE BRANCH BANKING, PIONEERED IN CALIFORNIA... AND BECAUSE THIS STATE IS TODAY THE WEST'S GREATEST MARKET, BANK OF AMERICA HAS BECOME THE FIRST CHOICE OF BUSINESS EXECUTIVES WHEN THEY SEEK PACIFIC COAST BANKING SERVICE.

Bank of America
NATIONAL TRUST AND SAVINGS ASSOCIATION
MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION
MEMBER FEDERAL RESERVE SYSTEM

Main offices in the two reserve cities of California... San Francisco... Los Angeles

INVEST IN WAR BONDS AND HOLD THEM UNTIL MATURITY

ployees reported output relatively stable from January 1941 to January 1943, with a gain in employment of about 1 per cent. Output in large firms employing more than 125 wage earners increased substantially and employment rose about 62 per cent.

Of the 28,463,800 employees gainfully engaged in 1939, 13,418,500 were employed in productive industries, 11,203,600 in distribution, and 3,841,700 in service lines. Of the 3,316,700 business firms in existence in 1939, 437,000 were in the commodity producing groups, 1,953,000 in distribution, and 925,000 in the service industries.

While manufacturing firms accounted for about 6.5 per cent of the total number of firms in 1939, they employed 39.6 per cent of the wage earners. On the other hand, retail businesses comprised 48.3 per cent of all businesses but employed 23.4 per cent of the workers. About 63 per cent of all employees are in manufacturing and retail firms, 20 per cent are in transportation and service industries, and the remaining 17 per cent of wage earners are in mining, contract construction, wholesale trade, and finance.

Generally, most firms in all industries and trades are in the smaller size groups, with the number of firms in each size group decreasing as the size of the businesses increases. In 1939 total firms employing less than 500 persons numbered 3,311,800 or 99.9 per cent while those with more than 500 employees totalled 4,900, or 0.1 per cent. In every industry and trade there are more small firms than large ones.

But the large firms employ most of the workers, that is 16.7 per cent of all workers are in 82.1 per cent of the firms which have 3 or less workers, while 40 per cent of all wage earners are in the largest 0.1 per cent of all firms, those that employ over 500 people.

"Sometimes the division between small and large is made in terms of median employment; that is by dividing the firms into two groups, each accounting for half of the employment. On this basis, the division between small and large would be above 500 employees in manufacturing and in the transportation, communication, and public utilities group, and at the opposite extreme below 6 in retail trade.

"Between these extremes are mining, with the division between small and large at about 188 employees; contract construction at 151 employees; wholesale trade at 47 employees (the finance, insurance, and real estate group at 37 employees), and the service industries

group at 13 employees. For all industries combined, half of the total employed labor force of 28,464,000 was in firms with about 200 or more employees."

From 1929 to 1939, the largest 5 per cent of wholesale establishments increased their sales volume from 39.5 to 45.5 per cent of all wholesale trade volume. The largest 5 per cent of retail establishments increased their sales volume from 44.7 to 46.6 per cent of all retail trade. In the same period the next largest 20 per cent of establishments decreased from 41.0 to 34.9 per cent for wholesale trade, and from 31.9 to 29.3 per cent for retail trade. The smallest 75 per cent of establishments maintained a fairly constant proportion of the volume in both instances.

There have been indications in retail trade that larger firms have increased their proportion of the total volume since 1939, although the relative position of small firms has been well maintained in the business economy. Retail sales and inventories of all retail stores increased 23 and 32 per cent respectively between 1939 and 1942. Large stores, with sales of $100,000 and over, increased their volume about 27 per cent and their inventories about 39 per cent in the same period. The lines which had the greatest gains in volume were those of the large stores; the volume of sales of small stores was below that of the larger stores in almost all lines except jewelry stores and household appliance dealers. Sales of women's apparel stores were about even for both small and large stores.

In 1939, 90 per cent of all new, discontinued, and transferred businesses employed less than 4 wage earners; firms with 50 more employees comprise but 1 per cent of new, discontinued, and transferred firms. From 1940 through 1943 that also generally prevailed in all industries. There was a larger turnover of businesses in the small size group—with less than 4 employees—than in the firms with 50 or more workers. In 1943 the larger firms accounted for a greater percentage of births and deaths than they did in 1940.

In 1940, 89 per cent of all the business births were in the small size category (with 3 or less employees) and in 1943, 86 per cent fell in this same group. About 96 per cent of business deaths in 1940 were in firms with 3 or less employees; in 1943, 93 per cent were in this size classification. Business transfers also were more predominant in this small size group. The flow of

business births and deaths were mostly in small firms.

Of the 30,800 new manufacturing businesses in 1940, 74 per cent had less than 4 employees and in 1943 68 per cent of the entries were in this small size class. In 1940, 96 per cent of the manufacturing businesses which were discontinued employed less than 4 workers, while in 1943, 91 per cent of the deaths were in this small size group.

In retail trade again the largest proportion of new and discontinued firms was in the smallest size group—trades employing less than 4 workers. This pattern was true for each of the separate retail trades.

INFORMATION offered by this new examination of the business population and changes in the business population is going to be invaluable to many in the business world; especially to those in marketing and sales management work. In this article it has been possible only to summarize some of the broader results. Careful examination of the material thus far published by the Department of Commerce will be well repaid.

DUN'S REVIEW

290 BROADWAY NEW YORK 8, N. Y.

Willard L. Thorp, *Editor;* Norman C. Firth, *Managing Editor and Business Manager.*

ASSOCIATE EDITORS: Edwin B. George, Walter Mitchell, Jr., and A. M. Sullivan *(Contributing);* Howard Barnard; J. A. D'Andrea *(Statistician);* Lucienne Richon and Marjorie Fisher *(Business Conditions Staff);* Clarence Switzer *(Art Director).*

H. C. Daych, *Advertising Manager;* Russell B. Smith, *Western Advertising Manager,* 300 West Adams Street, Chicago 90, Randolph 8340; *Advertising Representatives:* Boston 16—Lawrence Mitchell, 80 Boylston Street, Hancock 5066; San Francisco 4—R. J. Birch & Co., 300 Montgomery Street, Douglas 4393; Los Angeles 14—R. J. Birch & Co., 607 South Hill Street, Van Dyke 7386.

SUBSCRIPTION: $4 a year; $10 for three years; 35 cents a copy. Outside the United States, $5 a year. DUN'S REVIEW goes to the chief executive of each company using the services of DUN & BRADSTREET, INC. Service subscribers may obtain additional subscriptions to the magazine for executives, branches, and so on, at special rates.

THE CONTENTS of this magazine are indexed in the Industrial Arts Index and also annually in an index available upon request to the publishers. . . . Member C.C.A. . . . Volume 53, No. 2202.

MORE DETAILED breakdowns of those data originally compiled by the publishers appear monthly in DUN'S STATISTICAL REVIEW, largely in tabular and chart form, $1 a year, $2 outside of the United States. These data include business failures, bank clearings, building permits, price indexes, and regional trade information; they are summarized and interpreted each month in DUN'S REVIEW (see pages 17, 18, 20, 22).

stly

ing
less
per
nall
the
ere
4
of
up.
ro-
ms
les
his
ate

ex-
on
on
he
se
nt
os-
he
on
by
be

Y.
h,

er
);
);
si-
rt

B.
st
d-
ce
n
ry
th

35
r.
h
r,
al
s,

n
n
.

a
r
y
e
s
e
e
's